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ACHIEVEMENT LEVEL OF PRIMARY SCHOOL CHILDREN AT THE END OF CLASS IV

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**Indian Statistical Institute
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&
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Research And Training
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CONTENTS

1. INTRODUCTION	1
2. METHODOLOGY	
(A) Demographic Data and Sampling Frame	4
(B) Level of Learning Assessed	6
(C) Tests Used	7
(D) Sampling Design	12
3. FIELD WORK	14
4. EVALUATION AND SCORING	16
5. FINDINGS	17
(A) On Schools	17
(B) On Students	27
(C) On Students' Scholastic Achievements	29
(D) On Scholastic Achievements and Socio-economic Factors	39
(E) On Profile of Students of Government Schools, High-achievers and Low-achievers	54
SUMMARY AND OBSERVATIONS	111
APPENDIX - A	
Estimation Procedures	119
APPENDIX - B	
Two Parameter Logistic Model	121
NOTE ON ICCs	127
Bengali Test Items	128
Mathematics Test Items	141
EVS Test Items	153
CONFIDENCE INTERVALS	167
REFERENCES	172

ACKNOWLEDGEMENTS

The planning and execution of a project of such a dimension (covering all the 17 districts of the state, encompassing the entire scholastic and non-scholastic areas of the primary syllabus, covering about 1.1 million students and taking into account 45,577 schools) has not been attempted before. It is the product of advice, help and co-operation received from a host of persons at different stages of the work. But before enlisting them by way of acknowledgement let us first recall the meeting that took place at Sri Kanti Biswas's (the Minister in charge of School Education, then and now) chamber at Writers Buildings on 12 March 1990. It was he who mooted the idea of a state-wide evaluation of the achievement level of primary school children at the end of class IV in the presence of invited representatives of the ISI and the SCERT, West Bengal.

A collective scheme towards the goal was decided on and the present volume is its product. Needless to say that the expertise of the ISI, the Psychometric Research & Service Unit in particular, in this area counted as it had already conducted a similar survey in the district of Hooghly.

The administration of such a big project had its share of ups and downs. In this context the project-team wishes to keep on record their great gratitude for help received from Sri N.K.S. Jhala I.A.S., Dr. U.K. Ray I.A.S. and Sri Sujit Sankar Chatterjee I.A.S. They have headed the Department of School Education during the period. A special word of thanks is due to Sri H.P. Mukhopadhyay, the then Joint Secretary and Sri Kalyan Roy, the

then Assistant Secretary who along with their colleagues went the second mile to make the endeavour a success.

Prior to the meeting with the Minister-in-charge, a seminar was organised at the premises of the SCERT on the 13th and 14th of July 1989. After a prolonged debate at the seminar (well-attended by teachers, experts, representatives of all the primary teachers' associations et al) covering several areas of primary education, an outline of the schedule of action was formulated. In conformity with this, groups were formed to construct test materials on both scholastic and non-scholastic areas of primary education. Since the work deals with the former let us gratefully keep on record the names of the designers of the scholastic tests :

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Sri Aloke Maity, Sri A. Mukherjee, Sri Dinanath Sen, Dr. P. Sarkar, Sri P. Bose, Sri Ajit Kr. Halidar.

Mathematics

The late Dr. Bireswar Raychaudhuri, Sri Sisir Ranjan Chakrabortty, Smt. Manju Roy, Dr. G.P. Mukherjee, Sri S. Kar, Sri S. Senapati.

EVS

Smt. Mrinalini Dasgupta, Dr. S. Munshi, Sri P.N. Patra, Dr. Partha Roy, Dr. A. Chatterjee, Sri Md. Refaitullah, Sri Anil Acharya, Sri Nemaïdas Datta, Sri Satyen Roy, Sri Sushildeb Das, Smt. Gouri Bhattacharya.

Though all the members of the three sub-committees could not equally spare their valuable time, the manuscript – yields of the work-shops – were ready within a fortnight for moderation and editing by the Psychometric Research & Service Unit of the ISI. In this connection let us acknowledge the great debt we owe to Sri Tapan Basumallik and Sri K.P. Bhattacharyya for their valuable guidance at every step.

Once this was finalised Sri Saraswati Press was approached. Sri Tapan Ganguly, the Managing Director, took a personal interest in the matter and the test materials along with sundry other items like the guardian schedule, school schedule, instruction manuals for investigators etc. were properly printed in no time, packetted district-wise and made ready for use. A wait for sanction of Government grant took usual time but the money required for the purpose was very unfortunately released by the then Director of the SCERT at the last moment. It caused great tension. In spite of this the administration of the tests began as per schedule in 1991 at the cost of great physical strain. All this, it must be remembered, was a sequel to frequent trips to the districts for the purpose of collecting school details necessary for sampling, and also at a later date for orienting investigators. For this we thank the district authorities who always lent us a helping hand and remain ever-grateful to Dr. S.N. Banerjee of the ISI. Local, educated, unemployed youth chosen by district educational authorities worked as investigators. This procedure, in spite of limitations, minimised the cost substantially.

The ISI had very kindly let us use their vehicles and trailers without

which timely reaching of district supervisors along with the materials, and administration of tests as per schedule would not have been possible. For that matter, with the exceptions of a few places where the testing had to be done later, bringing back the enormous raw data would have also posed a problem had it not been for the courtesy shown. In this context one recalls how Sri Dilip Sengupta of the ISI helped us. While thanking Dr. Jayanta K. Ghosh, the then Director of the ISI, for his constant interest and encouragement, let us not forget Dr. Atis Dasgupta and later Dr. Nikhilesh Bhattacharya of the Institute who helped us during trying times. But before concluding this sketchy and inexhaustive list of acknowledgement with the names of district supervisors, Sri Paresh Ch. Roy among others, who at the cost of great physical hardship and personal risk covered far-flung districts, travelling by road night and day – dropping test and other materials only in cases of districts easily commutable from Calcutta – let us also keep on record the great debt we all owe to Dr. Dipak Roy (then with the SCERT, now with Krishnagar Government College) and Dr. Partha Roy (then with the SCERT, now with Taki Government College).

List of District Supervisors

Coochbehar	...	S.K. Mitra	ISI
Jalpaiguri	...	Tapan Banerjee	ISI
Siliguri	...	Santosh Hazra	ISI
W. Dinajpur	...	Samir Datta	ISI
		Ramen Mahalanobis	ISI
Maldah	...	Prasanta Banerjee	ISI
Murshidabad	...	Subrata Pal	ISI
Hooghly	...	Dr. Dipak Roy	SCERT
		Dr. Partha Roy	SCERT
Bankura	...	Paresh Ch. Roy	ISI
Birbhum	...	Tejendranath Ghosh	ISI
		Baidya nath Pal	ISI
Purulia	...	Aloke Bhattacharya	Bangabasi School
		Dr. Tapan Banerjee	SCERT
Nadia	...	Ajoy Ghosh	ISI
Burdwan	...	Rameswar Kundu	ISI
		Arun Banerjee	ISI
Midnapore	...	S. Senapati	SCERT
		Aloke Maity	SCERT
N 24 Parganas	...	N.D. Datta	SCERT
S 24 Parganas	...	Dr. Surendranath Banerjee	ISI
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Howrah	...	Surendranath Banerjee	ISI
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Calcutta	...	Surja Sankar Ray	SCERT

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But without mentioning Sri Suhas Chattopadhyay, the present Director of the State Council of Educational Research & Training, West Bengal, (SCERT), by way of thanks giving this section would remain hopelessly incomplete.

1. INTRODUCTION

Although intermediate provisional results have been furnished to the government on occasions in the past, the present volume is its full form. It is the product of a project on the achievement level of primary school children at the end of class IV. Modelled on a similar project conducted by the PRSU of the ISI in Hooghly district, highly commended by the late Professor Syed Nurul Hassan, former Governor of West Bengal, it is based on sample surveys and covers all the 17 districts of the state. It very specifically focusses the educational scene as it stood during 1990 - 1991.

During the last decade and a half there has been a substantial expansion in facilities and increase of input in the field of education in West Bengal. Impressive statistics have been detailed and the objective of this survey was to find out whether the quality of primary education has matched its quantity. The overall literacy rate too, though not commensurate with the size and growth of the population, rose from 48.64 per cent in 1981 to 57.72 per cent in 1991 (against the all India figure of 52.11 per cent). The area of primary education (classes I to IV) also showed a marked growth, both in rural and urban sectors, as will be evident from the following information taken mostly from the booklet, *Status of Children in West Bengal, 1989* (Government of West Bengal, 1989) and *Report of the Education Commission, August 1992* (Government of West Bengal) :

Number of primary schools. In 1978 the total number of primary schools was 42,659 (36,222 rural and 6,437 urban) and in 1986, 48,456 (40,724 rural and 7,732 urban) and in 1992 a total of 51,021. The increase in number during the last 14 years was 19.6%.

Enrolment. The total number of children enrolled at the primary stage was 55,77,591 (24,27,800 girls and 33,49,791 boys) in 1978, 68,33,911 (29,68,561 girls and 38,65,350 boys) in 1986 and a grand total of 92,09,000 in 1992. The increase in number during the last 14 years was 65.1%.

Location of schools. Primary schooling facility is now available within a walking distance. About 97% of the total population is served by primary schools within one kilometre of habitations with a population of 300 or more.

Number of teachers. The number of teachers at the primary stage increased from 1,58,343 in 1978 to 1,67,172 in 1986, and to about 2,00,000 in 1992.

Expenditure on primary education. During 1987-88 the expenditure incurred on primary education was as follows : Administration and supervision : Rs. 5.32 crore; Teachers : Rs. 246.01 crore; Building grant : Rs. 0.44 Crore; and other expenses : Rs. 16.92 crore (mainly for classes I - IV). By 1992 the total outlay on primary education was Rs. 496.10 crore. It is evident that the financial input during the last 14 years has increased by 84.6%.

Schedule caste/tribe pupils. In 1986 the percentage of S.C. children in total enrolment at the primary stage was 24.80, and that for S.T. children, 5.05.

However, against the rather impressive statistics on quantitative aspects, reliable information were lacking on the qualitative side, that is, the standard of learning or educational level reached by primary school pupils. Well-designed achievement surveys are, therefore, needed to be periodically undertaken to throw light on pupils' attainments and monitor the rate of progress. The present survey is a modest attempt towards that end.

The curriculum of primary education in West Bengal (introduced since 1980) comprises : (i) games and physical education; (ii) work based on productivity and creation; (iii) work based on direct participation; and (iv) work based on teaching-learning (academic work). Academic work includes the study of (a) the mother tongue, (b) Mathematics, and (c) Environmental Studies (Government of West Bengal, 1980).

To obtain a full picture of how well the children have fared under this education policy, a comprehensive assessment in all the above areas was necessary. Though raw data was collected from all the areas mentioned, the present report had to be restricted for technical, administrative and financial reasons to the academic zone which covers the study of (a) the mother tongue (b) Mathematics and (c) Environmental Studies. The aim was to ascertain, through suitable tests, the level of learning attained by pupils in the three subjects at the end of the primary stage, class IV. Though class V is the terminal class of the primary stage, it by and large

forms a part of the secondary schools in West Bengal. There are only 1700 primary schools which have a class V attached, and these are known as "basic" schools. The survey was carried out on a sample of approximately 11,410 class IV pupils from 879 primary schools spread all over West Bengal during March 1991.

2. METHODOLOGY

(A) Demographic Data and Sampling Frame

For field work all the 17 districts of West Bengal were chosen. Some important demographic data (1991) regarding the districts are given below (Tables 2.1 and 2.2) :

Table 2.1 : Demographic data of the State (1991)

1. State	: West Bengal
2. Area	: 88,752 in Km ²
3. Total population	: 67,982,732 (Male 35,461,898, Female 32,520,834, (Rural 49,360,718, Urban 18,622,014)
4. Percentage of S.C. and S.T. population to total population (1981)	: 15.75 and 7.76
5. No. of villages	38,024 (1981)
6. No. of towns	382
7. Literacy rate	: 57.72% (Male 67.24%, Female 47.15%)
8. No. of Primary schools	: 51,021 (Government 24, Rural 40,724, Urban 7,732)

Source : India, Register General, Census of India 1981/1991

Table 2.2 : Demographic particulars of the districts of West Bengal (1991)

		Density (pop. per sq. Km.)	Sex ratio*		Literacy rate		% of pop. of districts
			1981	1991	Male	Female	
1.	Coochbehar	637	935	934	55.7	33.6	3.18
2.	Jalpaiguri	448	910	928	55.5	33.5	4.10
3.	Darjeeling	424	888	923	67.1	55.0	1.96
4.	W. Dinajpur	585	937	930	47.8	28.3	4.61
5.	Maldah	706	949	938	43.4	24.2	3.87
6.	Murshidabad	889	959	945	44.0	28.6	6.96
7.	Nadia	980	946	938	59.9	44.8	5.66
8.	N. 24-Parganas	1,778	891	909	74.2	58.2	10.71
9.	S. 24-Parganas	573	927	929	66.5	36.6	8.40
10.	Calcutta	23,670	741	797	89.4	78.9	6.46
11.	Howrah	2,535	873	878	77.1	59.8	5.47
12.	Hooghly	1,382	909	917	77.8	59.2	6.40
13.	Midnapore	593	951	944	80.1	57.3	12.28
14.	Bankura	407	964	948	64.8	37.3	4.12
15.	Purulia	354	957	946	60.5	23.9	3.26
16.	Burdwan	851	897	898	71.4	52.8	8.80
17.	Birbhum	562	962	946	57.0	36.5	3.76
	West Bengal	766	911	917	67.2	47.2	100.00

* No. of females / 1,000 males

* Total population = 67,982,732

The basic unit of sample was the "school". To prepare the sampling frame, particulars about the primary schools in the districts were collected from the District School Boards, and the offices of the District Inspector of Schools (primary). Government and government aided Bengali-medium class IV schools were only considered.

The sampling frame was constructed on the basis of information given by the office of the District Inspector of Schools. It appears from other records that the sampling frame used and the total number of primary schools in the State vary. One reason would be that secondary and higher secondary schools with class V have not been taken into consideration and also a few schools which end with class V and not class IV. Municipal schools, likewise, have not been taken into account.

(B) Level of Learning Assessed

The object of the survey was to ascertain how far *minimum learning* had been achieved by pupils in the subjects concerned at the end of class IV. The National Council of Educational Research and Training (1979) has formulated a competency-based "minimum learning continuum (MLC)", where minimum learning has been defined as "learning based on the essential competencies expected of most of the children by the end of five years of primary education". The MLC specifies not only the terminal competencies expected at the end of class V, but also the levels of competencies to be achieved at the end of each class, step by step. The terminal com-

petencies represent the culmination of the competencies achieved in lower classes. Minimum learning does not obviously mean the "ultimate limit" of learning, although it assumes "mastery" of the competencies at any stage. For the present survey, essential competencies under the MLC had to be necessarily considered in the context of the prescribed syllabus for class IV. However, instead of looking for competency-wise mastery, a somewhat different approach to minimum learning has been adopted in this study, which is described later.

(C) Tests used

Three short achievement tests - one in Bengali, the others in Mathematics and Environmental Studies were used in the study. Substantial help was received from experts in test construction. Burt's (1962) well-known work *Mental and Scholastic Tests* served as a valuable guide. Item-pools developed at the teachers' / experts' workshop held at the premises of the SCERT on 13-14 July 1989 were of use.

Test items were of both multiple-choice and free-response types. Questions were generally of low and moderate difficulty and included some of class II and III stages. Primary versions of the tests were applied in two Calcutta schools. One in north Calcutta, the other in east Calcutta. Matters for loud reading and dictation were also pre-tested. On the basis of item-analysis and careful observation of children's behaviour while answering, items were revised or discarded. Final versions of the tests were printed

in the form of question-cum-answer booklets. Before printing, tests were vetted by subject-matter experts. The total number of items in Bengali was 84 (excluding dictation), in Mathematics 55 and in Environmental Studies 62.

(i) Mathematics :

The MLC identifies the following essential competencies in Mathematics at the primary stage : (a) competency in the use of numbers; (b) skill in computation; (c) knowledge of the use of currency and standard units of length, weight, volume, area and time; (d) knowledge and use of fractions; (e) conceptualization of geometric forms and shapes.

The test on Mathematics was prepared keeping in view the above competencies and the prescribed syllabus. The use of language in the test was kept at the minimum. The questions were framed in such a way that most of them could be answered orally or solved mentally. The Mathematics syllabus at the primary stage starts with concrete examples; but assumes development of some degrees of abstract mathematical concepts at the end of class IV.

Items in the Mathematics test were all of the free response type. These were generally distributed as follows :

(a) skill in the use of numbers; recognising, writing and arranging numbers from 1 to 1,00,000; relationship among numbers; abstract nature of numbers;

(b) computational ability; four fundamental arithmetical operations; solving of mathematical problems employing the skill in the use of numbers together with that of computation; addition and subtraction of decimal numbers;

(c) understanding and use of fractions; average; L.C.M. and H.C.F.;

(d) transforming mathematical problems expressed in ordinary language into mathematical language;

(e) knowledge of various units of measurement; fractions and their relation with physical properties of matter like length, weight, etc.; and

(f) understanding geometrical shapes and forms.

(ii) Bengali :

Language learning involves development of the basic skills of listening, speaking, reading and writing. The present survey was limited to parts of reading and writing abilities. The MLC specifies the following terminal competencies under “reading” :

(a) to read with understanding various types of printed materials; (b) to read and recite with correct pronunciation, proper stress, intonation and ease; (c) to read silently and speedily; (d) to read for pleasure; and (e) to read hand-written matters. The terminal “writing” skills are : (a) the ability to write legibly and correctly with proper punctuation marks; (b) the ability to write about one’s own experience; (c) the ability to write letters and applications.



The Bengali test was constructed keeping in view the MLC along with the prescribed syllabus. The test booklet covered the following broad aspects of reading and writing abilities :

(a) knowledge of the alphabet : recall of particular consonants; identification of constituent consonants in given conjunct consonants (class II);

(b) vocabulary / word meaning : indication of synonyms / antonyms of given words (class III / IV text books); filling up of blanks in sentences by appropriate words (class IV text book);

(c) reading comprehension : answering simple questions on given paragraphs (textual and non-textual); arranging given sentences in a proper order to make up a story;

(d) writing skills : joining given sentences into compound ones; identification of parts of speech; making sentences by arranging haphazardly given words (class III text book); writing complete sentences in response to specific questions; writing a short paragraph on a given topic; *and knowledge of spelling* : writing down dictated words, spelt with long and short vowels, conjunct consonants, etc. (class III / IV text books); *and dictation* : taking dictation of running matter, using punctuation marks (class II).

(e) reading (loud) : A passage consisting of 3 lines was given for 'loud' reading. It had conjunct consonants and students by turn were asked to read out. Investigators evaluated the same on the spot.



(iii) Environmental Studies :

Since the aims of EVS are different and the teaching procedure followed is somewhat different the test-construction was done on a different note. For one thing, there is no prescribed text-book for classes I and II. At this stage teaching of right values is to be done through verbal interactions between the teacher and the taught. These should be directed to the inculcation of a scientific attitude, formation of a productive and rightly inclined citizen etc. A general knowledge of immediate surroundings, elementary knowledge of natural phenomena, geography, history, social institutions and individual duties are therefore all that are required.

With class III the text-book is introduced and the transition from the informal to the formal method of teaching-learning should according to the syllabus be desirably easy. These text-books continue till class V.

The EVS test was constructed keeping in view the prescribed syllabus. The test booklet covered the following broad aspects and did not demand expression through writing :

(a) Society and its historical perspective; history : marking the only correct answer out of a choice of mainly three, (classes I - IV).

(b) Environment : marking the only correct answer out of a choice of three. It covered elementary geography and very little of civics (classes III and IV).

(c) Natural Sciences : marking the only correct answer out of a choice of three. It covered elementary life-science, physics, chemistry (classes III

and IV).

(d) Social awareness : marking the only correct answer out of a choice of three. It covered a whole range of topics with a view to find out whether the child has formed the desired scientific attitude to life and situations (classes I to IV).

(D) Sampling Design

The sampling frame consisted of a total number of 45,577 eligible schools, government-aided, covering 17 districts of West Bengal. From this frame, samples of roughly 2% schools were drawn independently for each district, by the method of "simple random sampling without replacement" (SR-SWOR). As separate lists of urban and rural schools were not available sampling could not be done on this basis. Incidentally many of the schools were co-educational.

Our ultimate sampling units were students and schools were considered as clusters. In cases of selected schools where the number of class IV students was 20 or less all the students were put to assessment. But in cases where the number exceeded 20, students were chosen randomly. Some selected schools could not be taken into consideration as investigators (local, educated and unemployed youth) failed to turn up. But this has not substantially affected the randomness of selected schools, Table 2.2 shows the distribution of sample units.

Table 2.2 : Districtwise distribution of the total and sampled schools and number of selected students

Districts	Total number of schools (frame)	Number of schools selected	Number of students tested
Coochbehar	1587	45	498
Jalpaiguri	1874	57	671
Darjeeling(Siliguri)	375	33	328
W. Dinajpur	2505	58	524
Maldah	1782	50	540
Murshidabad	2989	60	790
Nadia	2730	48	716
N. 24-Parganas	2220	60	581
S. 24-Parganas	2276	51	500
Calcutta	2797	36	247
Howrah	2462	50	864
Hooghly	3687	60	889
Midnapore	7632	70	935
Bankura	3670	60	1011
Purulia	3214	47	764
Burdwan	1629	52	841
Birbhum	1148	42	711
West Bengal	45,577	879	11,410

Note : "Population" in the volume means 'student population' either classes IV (the target group) and/or students of primary class as stated.

3. FIELD WORK

The survey was carried out during 6,7 and 8 March 1991. The investigators, as mentioned before, were local, educated, unemployed youth, all chosen by the district school authorities. Prior to the tests which were held in class rooms of the selected schools, spread over three sessions and lasting for three consecutive days, training was given to the investigators. This was done by visiting the districts and inviting the investigators to attend meetings generally held at districts towns, the venue being selected by district authorities. To ensure reliability and pre-empt mistakes, detailed printed (Bengali) instructions, of what is to be done and when, were supplied to the investigators. But in spite of this there have been failures. Some investigators failed to report to school on the appointed date and time. Others supplied inadequate information. Anyway the investigators were asked to establish rapport with the children first and explain the tasks before distributing the test booklets.

Children wrote their answers in the booklets as directed. Tests were held under *power* condition, no time limit being imposed for answering. A tiffin time lasting for 20 minutes to 30 minutes was allotted. Almost all students finished a test within an hour and a quarter. Usual safeguards were adopted to ensure fair tests. Investigators got the *Guardian Schedules* filled in by calling on pupils' parents or guardians. *School Schedules* were filled in and signed by heads of schools. The former provided background information of the students tested; the latter supplied particulars about

schools.

4. EVALUATION AND SCORING

Guidelines for scoring and evaluation were decided by a panel of experts. Accordingly Bengali and Mathematics scores were 0 and 1 for each item. In other words, 1 was awarded for the right answer and 0 for omission or incorrect response. Only in cases of a few items in Bengali the range was 0-1-2, e.g., in cases of sentence construction. In such cases each sentence was considered two items.

For loud reading of a passage, a three point grade was used (a) good (b) medium (c) poor.

(A) Achievement Test Score

By summing up scores (0 - 1) for all items of all the three subjects (Bengali, Mathematics and EVS) the raw score was determined. Maximum possible raw score for Bengali was 84, for Mathematics 55, and for EVS 62. The reliability co-efficients of the three tests, formed by using Kuder - Richardson Formula 20 were 0.94 for Bengali, 0.93 for Mathematics and 0.90 for EVS. The co-efficients indicate high internal consistency or homogeneity of these three tests. Pair-wise correlations between the tests are as follows:

Between Bengali and Mathematics 0.75

Between Bengali and EVS 0.71

Between Mathematics and EVS 0.67

Dictation (running-matter) considered as a skill in the psycho-motor domain has been scored separately. The number of words and punctuations reproduced correctly was considered as score.

(B) Logistic Model Score

Raw scores obtained as above were however not used in the final analysis of the test data. Item scores were converted to obtain a test score for each child by using differential weightages for items and combining them by following the two-parameter logistic model (Lord and Novick, 1968). This was done with a view to achieve more meaningful measures of the "latent" skill in the subject read. The method is more fully described in Appendix B. For easy interpretation a simple linear transformation has been made. As a result scores have been confined between 0 & 100. These scores have been used to compute means and other statistical details.

(C) Minimum Expected Score

Assessment of minimum learning implies "mastery testing" of different competencies. But, "although the concept of mastery testing or criterion-referenced testing has strong logical appeal, at least initially, its practicability for most educational purposes is greatly restricted because of the unavailability of definitive means of establishing performance standards" (Stanley and Hopkins, 1978).

Therefore, instead of trying to determine "mastery" in competencies separately, a minimum expected score for the whole test has been pro-

posed as an approximate measure of minimum learning (subject-wise) in this study. This is based on the concept of "borderline examinees" (Livingston and Zieky, 1982). The minimum expected score (MES) is the score expected from a student whose knowledge and skills are on the borderline between the upper group and the lower group. Subject-matter experts (three for Bengali and three for Mathematics) were asked to consider each question and make "a judgement of the probability that a borderline test-taker would answer the question correctly". The sum of the probabilities for correct answers to individual questions formed each expert's estimate of the borderline testee's expected score for the whole test. Estimates of experts were pooled and averaged. Incidentally, the MES for Bengali and Mathematics tests turned out to be 48 and 50 respectively.

5. FINDINGS

What the survey has revealed have been arranged under 4 heads-

- a) On Schools
- b) On Students
- c) On Students' Scholastic Achievements, and,
- d) On Scholastic Achievement & Socio-economic Factors
- e) On Socio-economic factors for High and Low achievers

Findings are reported unless otherwise stated in terms of population parameters estimated from sample values.

A) On Schools

A school schedule had been prepared and this was handed out to the head teacher of each selected school. Details about schools were collected from and on the basis of information provided by respective school authorities. In this connection it should be noted that there are certain gaps in the information collected from a number of districts, particularly Malda. So, after careful scrutiny, only such details are provided that are based on information available. So these should be read cautiously (see relevant tables).

Table 5.1.1 : It is evident that though most schools have claimed that they follow 'continuous evaluation' - 32% of Coochbehar schools, 24.1% of Jalpaiguri schools, 20% of South 24 Prgns. schools and 16% of Calcutta schools have reported to the contrary. In this context it is worthwhile to note that 'continuous evaluation' followed by remedial teaching is an essential component of primary education. An overwhelming majority of schools follow either a one-month evaluation system or a more spaced out scheme. As for reporting of evaluation results to parents there are wide variations among districts. Some schools send it once a year while others twice or thrice a year.

Table 5.1.2 : From this it is clear that most schools give homework regularly and only a handful give no such assignments.

Table 5.1.3 & 5.1.4 : They indicate that about 37.5% schools in West Bengal have pucca buildings, 38% have semi-pucca or mostly kutcha structures and the remaining 25% have places which do not fit into any proper housing category. As regards pucca buildings the number varies from district to

district. Jalpaiguri has a low of 15% while Calcutta has about 90% pucca buildings for primary schools. Moreover it is evident that about 80% of schools in West Bengal have no toilet facilities, and very few schools have separate toilets for teachers. Even in the state capital, Calcutta, 11% have no toilet facilities. In conclusion it is interesting to note that though 37.5% schools have pucca buildings only 20% have toilet facilities.

Table 5.1.5 : From this table it can be seen that the majority of schools in West Bengal have only 1 room for all 4 classes. This computes to 34%, while 28% schools have 4 or more classrooms. All Calcutta schools have 4 or more classrooms but in the districts there are wide variations in the number.

Table 5.1.6 : From this table it is clear that there is wide divergence among the districts in respect to the availability of benches for students and blackboards for classrooms. In the matter of such vital and basic teaching-aids, students of classes I & II are relatively more deprived than their seniors in classes III & IV.

Table 5.1.7 : From this table it is evident that very few schools, i.e., 2%, are provided with free tiffin regularly. 40% schools have reported that they have no provision for free tiffin. In this context it should be noted that as many as 7 districts have claimed that they have no free tiffin facility. All this should be viewed against the 1991 primary education scene and it is worthwhile to record here that school attendance is positively related to achievement; this aspect has been dwelt on and discussed later in the volume.

Table 5.1.1 Districtwise information about 'continuous evaluation', frequency of examinations and reporting of results

District	Continuous Evaluation (%)		Frequency (%) of Evaluation			% of schools by number of times results are reported		
	Yes	No	Weekly	Fortnightly	Monthly	Thrice	Twice	Once
Coochbehar	68.0	32.0	9.5	2.4	88.0	12.5	72.5	15.0
Jalpaiguri	75.9	24.1	9.8	17.6	72.5	24.0	48.0	28.0
Siliguri	91.2	8.8	9.1	9.1	81.8	31.4	48.6	20.0
W. Dinajpur	73.2	26.8	6.1	14.3	79.6	11.3	58.5	30.2
Malda	92.0	8.0	-	-	100.0	8.3	41.7	50.0
Murshidabad	100	0.0	3.5	81.0	15.5	32.2	42.4	25.4
Nadia	92.0	8.0	8.7	6.5	84.8	54.0	28.0	18.0
24. Pgs(N)	90.2	9.8	9.8	23.0	67.2	60.0	26.7	13.3
24. Pgs(S)	80.4	19.6	12.8	17.0	70.2	44.4	37.8	17.8
Calcutta	84.4	15.6	28.9	20.0	51.1	87.8	9.8	2.4
Howrah	96.3	3.7	20.4	13.0	66.6	90.7	9.3	-
Hooghly	100	-	25.0	22.7	52.3	57.7	35.6	6.7
Midnapur	94.3	5.7	18.2	21.8	60.0	43.4	20.8	35.8
Bankura	93.0	7.0	17.5	8.8	73.7	58.6	20.7	20.7
Purulia	97.2	2.8	10.8	10.8	78.4	27.3	34.1	38.6
Burdwan	100	0.0	24.6	14.8	60.6	63.4	33.3	3.3
Birbhum	96.0	4.0	17.6	9.8	72.6	54.0	24.0	22.0
West Bengal	91.1	8.9	14.2	19.6	66.2	45.2	32.7	22.1

Table 5.1.2: Districtwise information regarding homework

District	% of schools by frequency of homework given		
	Regular	Occasional	Never
Coochbehar	75.5	24.5	00
Jalpaiguri	73.6	22.6	3.8
Siliguri	75.8	18.2	6.0
W. Dinajpur	61.4	36.8	1.8
Malda	58.3	41.7	00
Murshidabad	78.0	22.0	-
Nadia	84.0	16.0	-
24 Pgs(N)	86.7	13.3	-
24 Pgs(S)	81.8	15.9	2.3
Calcutta	82.9	17.1	-
Howrah	95.5	4.5	-
Hooghly	91.3	8.7	-
Midnapur	86.8	13.2	-
Bankura	91.5	8.5	-
Purulia	84.2	15.8	-
Burdwan	81.7	18.3	-
Birbhum	82.3	17.7	-
West Bengal	82.0	17.5	0.5



**Table 5.1.3: Districtwise information regarding
types of primary school buildings**

District	% distribution		
	Pucca	Semi-Pucca	Other
Coochbehar	28.9	48.9	22.2
Jalpaiguri	14.8	55.6	29.6
Siliguri	25.5	40.4	34.0
W. Dinajpur	23.2	26.8	50.0
Malda	36.4	45.5	18.2
Murshidabad	52.5	32.2	15.3
Nadia	62.5	31.3	6.2
24. Pgs(N)	18.6	59.3	22.1
24. Pgs(S)	34.8	50.0	15.2
Calcutta	90.0	10.0	-
Howrah	41.5	47.2	11.3
Hooghly	41.3	39.1	19.6
Midnapur	21.1	43.9	35.0
Bankura	39.0	23.7	37.3
Purulia	55.5	19.5	25.0
Burdwan	52.5	21.3	26.2
Birbhum	41.2	29.4	29.4
West Bengal	37.5	37.7	24.8



Table 5.1.4: Districtwise information regarding toilet facilities available in primary schools

District	% of schools with toilet facilities for			
	Teacher	Teacher and student	Student	No facility
Coochbehar	2.2	13.3	8.9	75.5
Jalpaiguri	1.9	13.5	8.9	76.7
Siliguri	-	13.9	-	86.1
W. Dinajpur	5.1	1.7	-	93.2
Malda	8.3	-	-	91.7
Murshidabad	5.1	6.8	1.7	86.5
Nadia	8.2	18.4	6.1	67.3
24. Pgs(N)	3.3	27.9	3.3	65.5
24. Pgs(S)	14.9	6.4	17.0	61.7
Calcutta	2.3	77.3	9.1	11.3
Howrah	21.8	1.8	12.7	63.7
Hooghly	10.9	19.6	8.7	60.8
Midnapur	1.9	-	-	98.1
Bankura	1.7	1.7	1.7	94.9
Purulia	5.3	2.6	2.6	89.5
Burdwan	5.1	10.2	5.1	79.6
Birbhum	7.8	2.0	0.0	90.2
West Bengal	5.0	11.0	4.2	79.8

Table 5.1.5: Districtwise information regarding number of class rooms available in primary schools

District	% of schools by no. of class rooms				
	One	Two	Three	Four	Five or more
Coochbehar	61.5	20.5	7.7	7.7	2.6
Jalpaiguri	30.9	26.2	11.9	21.4	9.5
Siliguri	42.3	26.9	7.7	11.5	11.5
W. Dinajpur	64.1	23.1	5.1	7.7	-
Malda	25.0	41.7	8.3	25.0	-
Murshidabad	42.3	25.0	15.4	11.5	5.8
Nadia	34.0	14.9	17.1	19.1	14.9
24. Pgs(S)	36.2	8.6	13.8	29.3	12.1
24. Pgs(S)	45.5	18.2	6.8	13.6	15.9
Calcutta	-	-	-	30.8	69.2
Howrah	38.9	22.2	7.4	22.2	93.0
Hooghly	13.3	17.8	22.2	20.0	26.7
Midnapur	24.5	12.2	36.7	20.4	6.1
Bankura	57.1	28.6	5.4	7.1	1.8
Purulia	20.0	45.7	20.0	11.4	2.9
Burdwan	26.3	17.5	29.8	15.8	10.6
Birbhum	34.1	20.5	20.5	18.2	6.7
West Bengal	33.9	20.3	18.0	17.4	10.4

Table 5.1.6: Districtwise information regarding availability of benches and blackboards

District	% of schools with sitting arrangement		% of schools having blackboard facility in each class			
	Bench	Other than Bench	Availability of blackboards in the classes			
			I	II	III	IV
Coochbehar	86.7	13.3	43.2	40.9	54.5	75.0
Jalpaiguri	53.0	47.0	50.0	51.9	57.4	74.1
Siliguri	46.0	54.0	34.3	37.1	54.3	-
W. Dinajpur	36.4	63.5	20.3	20.3	32.2	45.8
Malda	-	-	23.1	38.5	61.5	92.3
Murshidabad	51.6	48.4	40.1	57.6	74.6	86.4
Nadia	51.0	49.0	60.0	72.0	88.0	98.0
24. Pgs(N)	74.6	25.4	65.6	73.8	80.3	95.1
24. Pgs(S)	79.3	20.7	55.3	78.7	89.4	95.7
Calcutta	80.0	20.0	83.3	90.5	92.9	92.9
Howrah	76.6	23.4	87.0	96.3	96.3	100
Hooghly	58.7	41.3	71.7	87.0	95.7	95.7
Midnapur	77.4	22.6	43.4	58.5	79.2	92.4
Bankura	33.3	66.7	33.9	35.7	33.9	69.6
Purulia	24.0	76.0	31.6	39.5	57.4	63.2
Burdwan	22.1	77.9	55.7	67.2	70.5	83.6
Birbhum	15.7	84.3	37.2	43.1	52.9	70.6
West Bengal	53.4	46.6	48.7	59.4	70.8	81.2

Table 5.1.7: Districtwise information regarding free tiffin to students

District	% of schools with provision for tiffin		
	Regularly	Occasionally	Never
Coochbehar	2.3	38.6	59.1
Jalpaiguri	3.7	46.3	50.0
Siliguri	2.8	55.6	41.7
W. Dinajpur	1.7	53.4	44.8
Malda	-	100	-
Murshidabad	3.5	78.9	19.3
Nadia	8.0	54.0	38.0
24. Pgs(N)	-	47.5	52.5
24. Pgs(S)	-	31.8	68.2
Calcutta	15.4	53.8	30.8
Howrah	-	75.5	24.5
Hooghly	4.3	76.1	19.6
Midnapur	-	45.3	54.7
Bankura	1.7	33.9	64.4
Purulia	-	67.6	32.4
Burdwan	-	70.0	30.0
Birbhum	4.0	92.0	4.0
West Bengal	2.0	58.1	39.9

B) On Students

Table 5.2 : Of the total student population (reviewed in 1991) about 55% are boys. The general picture of the districts, with the exceptions of Coochbehar, Calcutta and Howrah is that of boys outnumbering girls in primary education. In urban areas, except Coochbehar, the situation as suggested is different. The Calcutta and Howrah figures indicate that with urbanisation gender plays a more subdued role. The total number of primary students is 5.9 million of which approximately 18% read in class IV.

Table 5.2: Districtwise distribution of estimated numbers of students in primary classes (1991)

District	Number of students in class IV	Primary Classes (I-IV)				Total
		Boys		Girls		
		Number	%	Number	%	
Coochbehar	26,415	1,03,118	49.2	1,06,366	50.8	2,09,484
Jalpaiguri	41,948	1,83,400	60.2	1,21,486	39.8	3,04,886
Siliguri	8,029	24,583	58.3	17,552	41.7	42,135
W. Dinajpur	36,332	1,30,123	56.8	99,061	43.2	2,29,185
Malda	25,956	1,28,989	58.1	92,938	41.9	2,21,927
Murshidabad	56,343	2,08,521	55.0	1,70,626	45.0	3,79,147
Nadia	96,468	2,60,086	53.1	2,29,754	46.9	4,89,840
24-Pgs (N)	1,19,209	2,92,397	52.5	2,64,601	47.5	5,56,998
24-Pgs (S)	1,27,192	3,50,941	55.6	2,80,097	44.4	6,31,038
Calcutta	49,582	1,12,586	46.2	1,30,845	53.8	2,43,431
Howrah	47,366	1,24,739	45.0	1,52,855	55.0	2,77,594
Hooghly	1,01,113	2,52,339	58.2	1,81,111	41.8	4,33,450
Midnapur	1,44,136	4,27,392	53.8	3,66,483	46.2	7,93,875
Bankura	37,555	86,210	57.9	62,604	42.1	1,48,814
Purulia	36,594	1,38,451	61.8	85,619	38.2	2,24,070
Burdwan	85,169	3,06,958	59.3	2,11,034	40.7	5,17,992
Birbhum	35,961	1,13,057	55.7	90,018	44.3	2,03,075
West Bengal	10,75,359	32,43,890	54.9	26,63,050	45.1	59,06,940

(C) On Students' Scholastic Achievements

On performance in Bengali (Table.5.3.1)

The mean score in Bengali for the state as a whole is 38.6(out of hundred). This is much below the Minimum Expected Score(M.E.S.). There are variations among individual districts. Burdwan has scored the highest with 43. The minimum i.e. about 29, has been scored by Bankura. Siliguri with 30 is very marginally better. Calcutta and Howrah are at the level of the state average.

The variations in scores among students is expressed by standard deviation(S.D.). For West Bengal it is 16.5. In this connection it may be stated that there are considerable variations among the students. The intra-district variations among students are similar to the state variations.

With regard to the state standard error of mean, it can be said that it is not large. It is limited to 1.3. As for the districts the same can be said. Siliguri records the highest with 3.26 and Midnapore the lowest with 1.49.

The ratio estimate has been done from cluster-sampling. The bias, a natural corollary, is almost negligible in magnitude for each district. This should be evident from the table.

	38.6	16.5	1.3
Burdwan	43.0	17.0	1.7
Bankura	29.0	17.3	2.4
Siliguri	30.0	17.3	3.26
Calcutta	38.6	16.5	1.3
Howrah	38.6	16.5	1.3
Midnapore	29.0	17.3	1.49

**Table 5.3.1 Districtwise estimated mean scores for Bengali,
standard deviations (SD), standard errors(SE) of means,and
'bias'**

District	Mean	SD	SE	Bias
Coochbehar	34.7	17.7	2.6	-0.08
Jalpaiguri	39.0	19.2	2.6	-0.08
Siliguri	29.9	16.3	3.3	0.11
W.Dinajpur	36.9	16.6	1.9	0.02
Malda	34.2	16.0	1.6	0.07
Murshidabad	38.7	17.8	2.1	-0.06
Nadia	35.4	14.7	1.9	0.14
24 Pgs(N)	41.9	16.5	2.0	-0.03
24 Pgs(S)	42.0	16.7	2.2	0.03
Calcutta	38.6	17.9	2.3	0.02
Howrah	38.5	18.8	1.8	-0.02
Hooghly	41.5	21.7	3.1	-0.23
Midnapur	38.0	14.8	1.5	0.03
Bankura	29.8	14.9	1.7	0.08
Purulia	32.3	14.6	1.7	0.05
Burdwan	42.8	16.8	1.7	-0.06
Birbhum	34.6	17.3	2.4	-0.06
West Bengal	38.6	16.5	1.3	-

On performance in mathematics (Table.5.3.2)

The mean score in Mathematics for the state as a whole is 44. Like Bengali this is much below the Minimum Expected Score (MES). There are variations among individual districts. North 24-Parganas has scored the highest with 48.2. This is followed by Burdwan, Hooghly and Calcutta. The minimum i.e. about 34 has been scored by Bankura. Purulia and Siliguri are only very marginally better. Calcutta and Howrah are slightly better in comparison to the state average.

Like Bengali the standard deviation in Mathematics for the state is considerable. It is 17.8. The intra-district variations follow the state pattern.

It is evident from the table that the standard error of mean for the state is not large. It is about 1.2. The corresponding standard errors for the districts are similar to that of Bengali. Here also the estimated bias for each district is negligible.

Howrah	48.2	1.2	0.0
Hooghly	47.5	1.2	0.0
Midnapur	43.2	1.7	0.01
Bankura	33.7	2.0	0.14
Purulia	35.7	2.2	0.18
Burdwan	45.8	1.4	0.02
Birbhum	40.7	2.7	-0.06
West Bengal	44.0	1.2	-

Table 5.3.2 Districtwise estimated mean scores, standard deviations (SD), standard errors (SE) of means and 'bias' for Mathematics

District	Mean	SD	SE	Bias
Coochbehar	39.2	17.8	2.2	-0.05
Jalpaiguri	42.4	18.9	2.4	-0.07
Siliguri	36.3	18.4	3.7	0.01
W.Dinajpur	41.5	18.0	1.9	0.08
Malda	44.3	17.8	1.6	-0.02
Murshidabad	45.7	18.5	1.8	-0.03
Nadia	40.5	16.4	2.1	0.11
24 Pgs(N)	48.2	18.0	2.1	-0.02
24 Pgs(S)	45.7	18.0	2.1	0.11
Calcutta	45.5	18.3	1.9	0.02
Howrah	46.0	18.8	1.9	0.00
Hooghly	47.4	22.5	2.4	-0.19
Midnapur	43.3	16.8	1.7	0.01
Bankura	33.7	16.8	2.0	0.14
Purulia	35.7	18.2	3.3	0.13
Burdwan	47.6	18.4	1.4	0.02
Birbhum	40.7	19.7	2.7	-0.06
West Bengal	44.0	17.8	1.2	-

On performance in EVS (Table.5.3.3)

The mean score in EVS for the state as a whole is 44.8. There are variations among individual districts. North 24-Parganas has scored the highest with 50.6. This is followed by Calcutta with 50.4 and Hooghly with 49.8. Here again Bankura has scored the lowest with 32.7. Siliguri and Purulia are a little better.

The pattern of standard deviations, for state and districts, are similar to Bengali and Mathematics. Again the standard error for EVS, like mathematics, is 1.2. As before the estimated bias for each district is negligible.

District	Mean	SD	SE	Bias
West Bengal	44.8	10.9	1.2	-
North 24 Parganas	50.6	10.4	1.2	-
Calcutta	50.4	10.4	1.2	-
Hooghly	49.8	10.4	1.2	-
Siliguri	49.8	10.4	1.2	-
Purulia	49.8	10.4	1.2	-
Bankura	32.7	10.4	1.2	-

Table 5.3.3 Districtwise estimated mean scores, standard deviations (SD), standard errors(SE) of means and 'bias' for EVS

District	Mean	SD	SE	Bias
Coochbehar	39.7	19.2	2.0	-0.05
Jalpaiguri	48.0	19.2	2.6	-0.14
Siliguri	36.4	17.0	3.6	0.13
W.Dinajpur	39.6	17.1	2.8	0.24
Malda	40.5	19.5	3.9	-0.11
Murshidabad	46.0	17.7	1.7	-0.03
Nadia	41.9	15.3	1.7	0.08
24 Pgs(N)	50.6	16.4	1.7	-0.01
24 Pgs(S)	46.4	16.3	1.8	0.05
Calcutta	50.4	17.1	1.7	0.05
Howrah	44.5	17.4	1.6	0.00
Hooghly	49.8	21.4	2.7	-0.15
Midnapur	42.3	15.5	1.4	0.02
Bankura	32.7	14.7	1.6	0.09
Purulia	36.7	15.3	2.3	0.12
Burdwan	47.5	19.2	1.8	-0.04
Birbhum	40.4	16.8	2.3	-0.05
West Bengal	44.8	16.9	1.2	-

On Dictation And Reading Ability (Table 5.3.4)

Since psycho-motor ability is associated with dictation, a separate table has also been made. Loud-reading has also been incorporated for obvious reasons.

For dictation a passage was given. There are several ways of evaluating dictation. In this survey the method adopted for evaluating was that of allotting marks for words and punctuations reproduced correctly. These marks have been expressed through computed percentage of total number of words and punctuations given. In the case of 'loud' reading students have been categorised into good, medium and poor. Those who failed to read at all were marked poor and those who could just manage it were marked medium. The percentage of students in each category has been furnished.

If this is read with Table 5.3.1 it can be seen that there is conformity with the districtwise score in Bengali. But in the case of dictation the mean score is slightly higher and the variation among the students is wider. As for loud reading the best performers are from South 24 Parganas but even at the end of class IV the figure stands at 34%. Incidentally most students have been marked medium. For them extensive silent reading ought to be difficult; while going through the table it should be noted that 16% cannot read at all.

**Table 5.3.4: Districtwise mean scores and standard deviations
(SD) in dictation and students' reading ability**

District	Dictation (out of 100)		Reading ability		
	Mean	SD	Poor(%)	Medium (%)	Good (%)
Coochbehar	43.8	30.9	14.9	58.7	26.4
Jalpaiguri	46.4	23.1	23.5	48.3	28.2
Siliguri	33.4	24.0			
W.Dinajpur	35.9	23.2	16.0	56.7	27.3
Malda	36.3	27.5			
Murshidabad	44.5	21.5	16.0	58.6	25.4
Nadia	45.2	20.6	14.3	62.2	23.5
24 Pgs(N)	50.8	21.8	14.8	53.9	31.3
24 Pgs(S)	50.8	24.1	13.6	51.4	34.8
Calcutta	53.6	26.5	17.2	50.8	32.0
Howrah	47.3	24.8	17.2	56.6	26.2
Hooghly	54.2	31.3	11.8	57.8	30.4
Midnapur	43.2	21.0	21.6	53.7	24.7
Bankura	34.8	20.8	15.2	59.6	25.2
Purulia	38.1	25.0	11.6	61.9	26.5
Burdwan	50.5	20.8	12.1	55.3	32.6
Birbhum	38.1	24.3	17.9	54.3	27.8
West Bengal	46.3	23.4	15.8	56.0	28.2

On Minimum Expected Score (MES) Obtained By Students (Table 5.4)

There has been a lot of controversy over the determination of critical score, a dividing line between achievers and non-achievers. As for "mastery" the same controversy has remained unabated. The methodology followed for this survey is similar to the one followed by the ISI in its work on Hooghly. Here the MES for Bengali has turned out to be 48, and for mathematics, 50. As for EVS, Minimum Expected Score was not considered not meaningful because the subjects under its cover are a little too varied.

The MES obtained by students of Bankura in Bengali show only 13% and in mathematics around 19%. If both the subjects are taken together only 8.5% students reached the MES. Siliguri and Purulia are close to Bankura this way. Hooghly, contrastingly, is on the higher side with 29.2% (both subjects combined). This figure is higher than the one stated in the ISI report on Hooghly. If the state is taken as a whole only 20.3% students have reached the Minimum Expected Score, if Bengali and mathematics results are combined. In this context it is paradoxical that most schools have claimed that they follow the system of 'continuous evaluation'.

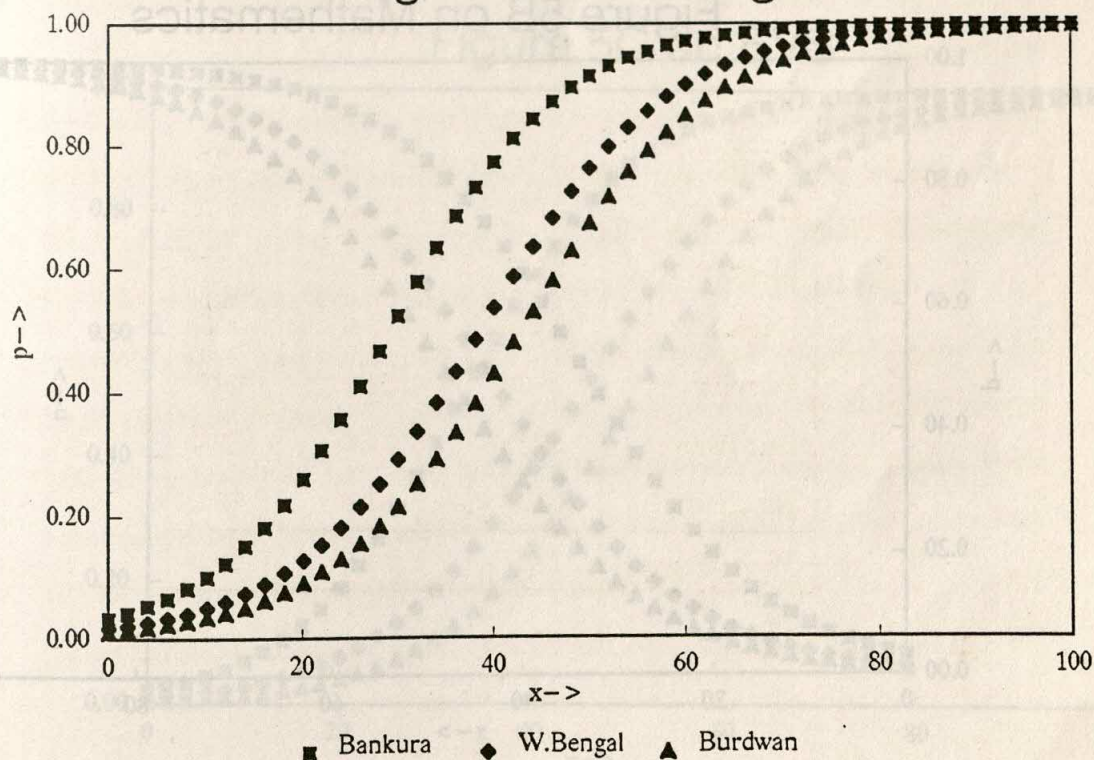
Bankura	13.0	18.0	8.5
Purulia	18.0	20.0	19.0
Hooghly	29.2	44.0	37.4
West Bengal	20.3	30.0	25.2

**Table 5.4: Estimated percentage of students who obtained
'minimum expected score' (MES) in Bengali, Mathematics, and
in both, districtwise**

District	Bengali	Mathematics	Both
Coochbehar	22.0	26.0	14.2
Jalpaiguri	31.0	34.0	20.4
Siliguri	13.0	22.0	9.0
W.Dinajpur	24.0	31.0	17.1
Malda	19.0	37.0	15.6
Murshidabad	29.0	40.0	21.7
Nadia	19.0	27.0	13.7
24 Pgs(N)	36.0	46.0	25.8
24 Pgs(S)	35.0	40.0	25.4
Calcutta	29.0	40.0	22.8
Howrah	30.0	41.0	18.4
Hooghly	37.0	45.0	29.2
Midnapur	24.0	34.0	17.7
Bankura	13.0	18.6	8.5
Purulia	16.0	24.0	10.5
Burdwan	37.0	44.0	27.4
Birbhum	21.0	31.0	16.2
West Bengal	28.0	36.0	20.3

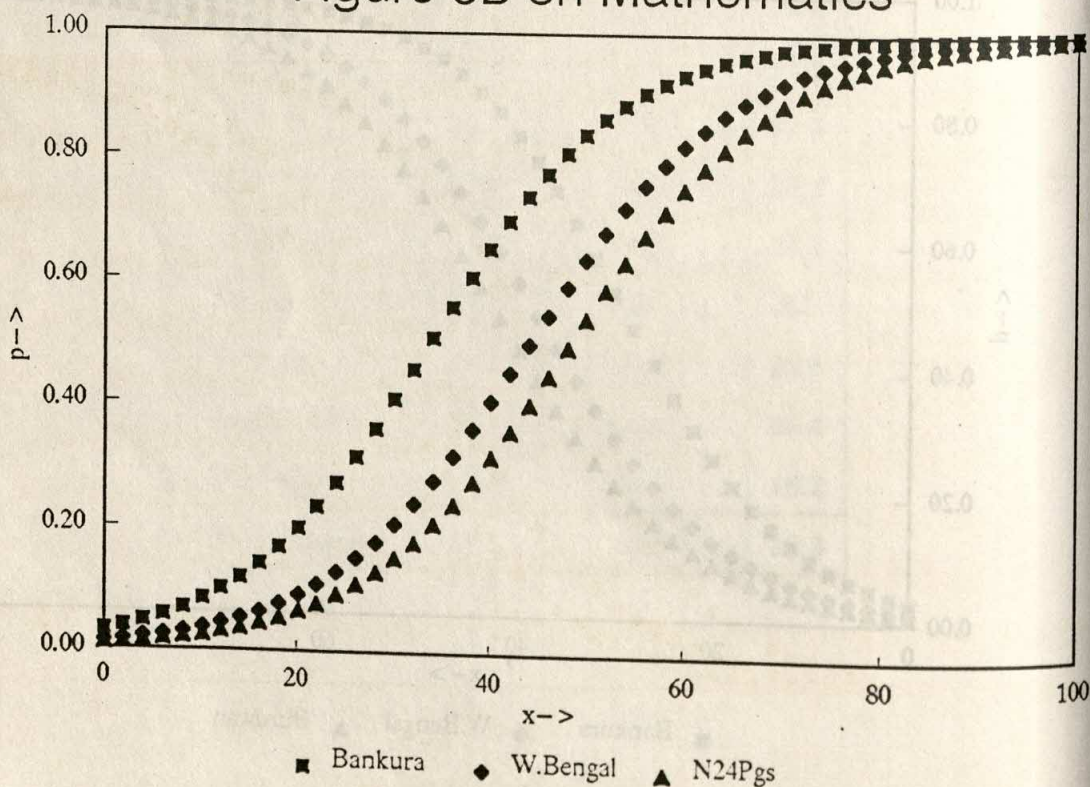
Cumulative distributions of scores for Bengali are presented in Fig. 5A. Three Curves (smoothed) for Bankura, West Bengal and Burdwan are given. The 'mean score' for Bankura is the lowest and for Burdwan the highest. Similar distribution curves for other districts are located (approximately) between Bankura and Burdwan.

Figure 5A on Bengali



Cumulative distributions of scores for Mathematics are presented in Fig. 5B Three Curves (smoothed) for Bankura, West Bengal and North 24 Parganas are given. North 24 Parganas has scored the highest in Mathematics.

Figure 5B on Mathematics



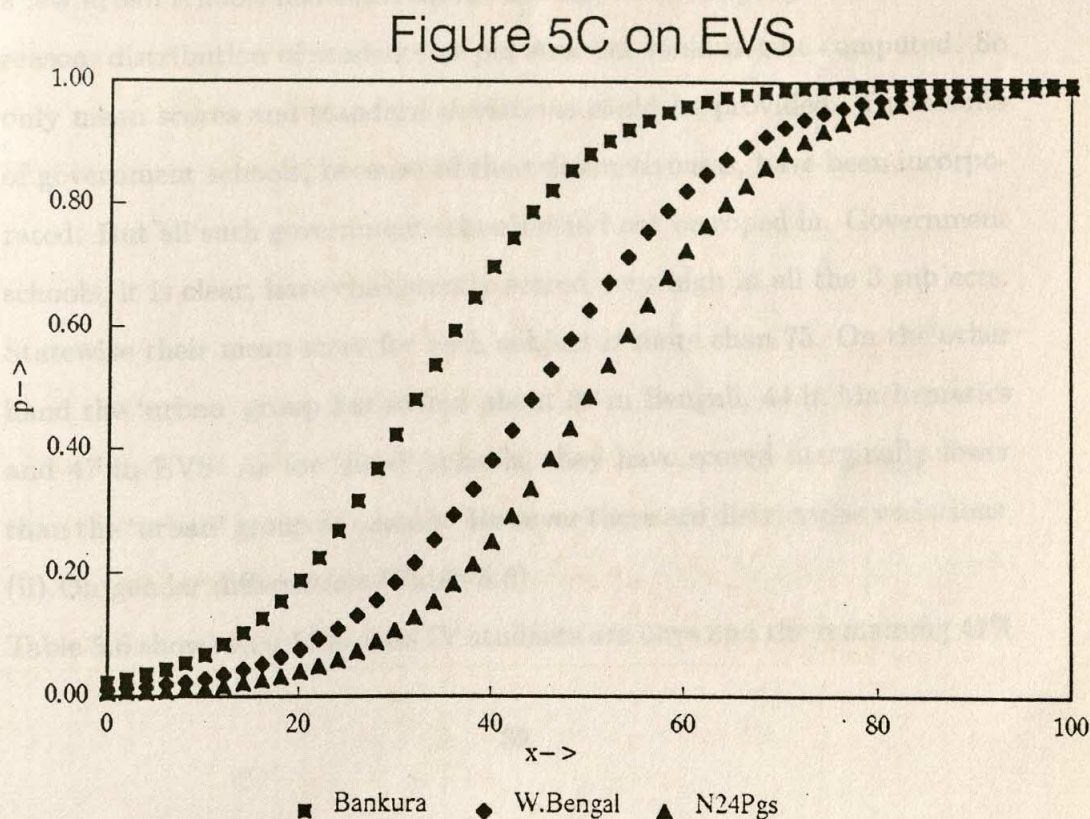
(D) On Scholastic Achievement and Socio-economic Factors

The relationship of scholastic achievement and socio-economic factors have been presented through a cumulative distribution of scores in table districtwise mean scores (out of 100) for Bankura, West Bengal, corresponding standard deviation, estimated normal population (population) and proportion (in percentage) for each Pargana are given.

On government schools, urban and rural differences (Table 5.5 etc.)

During the time of analysis, it was found that government schools provide

separate Cumulative distributions of scores for EVS are presented in Fig. 5C. Three Curves (smoothed) for Bankura, West Bengal and North 24 Parganas have been shown.



(D) On Scholastic Achievement And Socio-economic Factors

The relationship of scholastic achievements with certain socio-economic factors have been presented through a two-way classification of both. In each table districtwise mean scores (out of 100) for Bengali, Mathematics, EVS, corresponding standard deviations, estimated total number of students (population) and proportion (in percentage) for each background factor are given.

On government schools, urban and rural differentials (Tables 5.5 etc.)

During the time of sampling the local school authorities could not provide separate lists for urban and rural schools. As a result the work could not be carried on the basis of the two strata. However during analysis post-stratification was made and it was found that in a majority of districts only a few urban schools had come up in the sample. Principally because of this reason, distribution of students as per stratum could not be computed. So only mean scores and standard deviations could be provided. The results of government schools, because of their distinctiveness, have been incorporated. But all such government schools could not be roped in. Government schools, it is clear, have consistently scored very high in all the 3 subjects. Statewise their mean score for each subject is more than 75. On the other hand the 'urban' group has scored about 39 in Bengali, 44 in Mathematics and 47 in EVS. As for 'rural' schools, they have scored marginally lower than the 'urban' group of schools. However there are districtwise variations.

(ii) On gender differentials (Table 5.6)

Table 5.6 shows that 59% class IV students are boys and the remaining 41%

are girls. There are wide variations of sex-ratios in the different districts. In Purulia, it should be added, only 25% are girls. Similarly in districts like Jalpaiguri, Siliguri, Malda, Bankura and Burdwan the girls are proportionally less in number than that of the state average. In sharp contrast to this Howrah has a larger number of girl students. As for Coochbehar the sex-ratio is almost equal in primary classes. But very conspicuously class IV shows a sizeable 58% as boys. This should be viewed against table 5.1.1 where the picture is different in the case of total primary enrolment. It only indicates that the number of drop-outs among girls are more. This holds good for all districts if we read table 5.1.1 with table 5.6.

In West Bengal there is hardly any difference in achievement level between boys and the girls. Only in the case of Bengali (language) girls have marginally fared better. The pattern is similar if we consider individual districts. Calcutta stands out more in this regard. In Bengali and EVS girls have scored significantly higher. Yet another thing to be noted in this context is that the standard deviations in the case of girl students are slightly greater than that of boys.

(iii) On age differentials (Table 5.7)¹

Table 5.7 reveals that about 3% of students are underaged. The stipulated age, incidentally for class IV, is 9 years and above. But there are about 10% students whose age is 12 and above. The majority of the students

¹information regarding age was collected from parents / guardians and not from school reports

(about 49%) are aged 10+. The same pattern, in spite of differences, remains in the case of individual districts.

The relationship between age and achievement is somewhat curvilinear. Students belonging to the age group 9-11 have fared better than students belonging to other age-groups.

On Religion Differentials (Table 5.8)

Almost all students of West Bengal are either Hindus or Muslims. A bare minimum of 1% are Christians or followers of other religions. The figures stand at about 80% Hindus and about 19% Muslims. Hindus, incidentally, include tribals. Needless to say the Hindu-Muslim ratio varies from district to district. While Siliguri shows a low of about 3% Muslims, the Muslim student populations in Malda and Murshidabad are substantially greater. Performance-wise Hindus have ranked better. But in respect to all 3 subjects Christians have performed the best. In passing, it should be noted that in both Malda and Murshidabad where the Muslim population is high, Hindus have by and large done better.

On Mother Tongue (Table 5.9)

Almost all students (as many as 98.5%) declared their mother-tongue to be Bengali and only 1.5% have declared their mother-tongue as Hindi or 'other languages'. It is likely that tribals have declared Bengali as their mother-tongue. Interestingly those whose mother-tongue is Bengali have scored the highest i.e. 39 and those whose mother-tongue is Hindi have scored 31.6 which compared to the 'other language' group is considerably

lower. But in the case of Mathematics, the Hindi language group has scored better than the 'other language' group.

On Caste Differentials (Table 5.10)

The overwhelming majority of students at the end of class IV come from non-scheduled caste families. This computes to about 60.6%. Scheduled Castes comprise 32.5%. The remaining 7% belong to the Scheduled Tribes. This distribution varies from district to district. The Scheduled Tribe population is the highest in Purulia. This about 20%. The table shows that the highest proportion of Scheduled Caste hails from Siliguri. This is about 69%. The performance of the 'other caste' groups (not S.C. or S.T.) is considerably better. The S.T. in comparison is the worst. It is interesting to observe that in Burdwan which has about 4% Scheduled Tribe (S.T.) students, this group has scored the highest in Bengali. In the case of Purulia and Bankura, where there is sizeable number of Scheduled Tribe students, the score for Mathematics is relatively low. But contrastingly in Midnapore which has about 12% S.T. students there is little difference in performance among the caste and tribe groups.

On Father's Education (Table 5.11)

About 22% fathers have the educational attainment of 'School Final and above'. 12% are illiterates. The rest i.e. 66%, or the majority, are

literate who have dropped out of school at various stages. Needless to say the distribution varies from district to district. But the concentration of illiterate fathers is in Malda, Siliguri, Purulia, Murshidabad, and Nadia.

There is a clear linear relationship between fathers' education and wards' achievement in all 3 subjects. The difference between the average scores of children of category IV (S.F. & above) and category I (illiterate) in all 3 subjects is consistently 10. Similar linear trends are evident in individual districts.

On Father's Occupation (Table 5.12)

Among occupations 'manual labour' occurs most frequently in West Bengal. This frequency varies widely from district to district. While West Dinajpur shows 59%, the Purulia figure stands at 52%. Calcutta has a low of 3.3%, followed by Howrah - 8%, and North 24 Parganas - 10%. Understandably the scores of their wards are generally the lowest though certain districts show some deviations. Very conspicuously the Calcutta picture is different. Here the wards of 'manual labourers' have scored the highest. But this is true of only Bengali and EVS, not Mathematics.

In West Bengal skilled labourers form about 6%. Calcutta ranks the highest with 14%. It can be said that in general the wards of skilled labourers have scored better than the children of manual labourers.

Service-holders form 24%, with Calcutta ranking the highest with 48%. But there are variations in this regard among the districts. West Dinajpur

with 13.5%, Siliguri with 14.11%, Bankura with 15.2%, Murshidabad with 15.4%, Midnapore with 15.9% - are all on the lower side.

Petty-traders comprise about 15.6% in West Bengal. As usual there are variations among the districts. The scores of their wards can be considered as just average.

Businessmen constitute 4% in West Bengal. The distribution of this group is evidently related to industrialization and urbanization. So Howrah and Calcutta show higher figures. Their wards have done better than the general average.

Cultivators form about 15.6% of the surveyed population. As usual the distribution varies from district to district. Coochbehar ranks highest with 27%. Even in Calcutta there are wards belonging to this group. They comprise 0.3%. Statewise their mean score is below the general average in Bengali and above the same in Mathematics and EVS. The last group consists of wards of those engaged in 'other gainful or non-gainful occupation'. They have relatively fared better in Mathematics and EVS in comparison to Bengali.

On Mothers' Education (Table 5.13)

About 29% mothers in West Bengal are illiterates. This is 17% more than the percentage of illiterate fathers. Only 9% mothers belong to the category 'School Final & above'. It is worthwhile to note in this connection that even in Calcutta 20.5% mothers are illiterates. The proportion of

illiterate mothers in Purulia is the highest with 65%. This is followed by Malda which has registered 51%.

It is clear from the findings that mothers' education is positively related to wards' achievement in all 3 subjects. In this connection it should be noted that the effect of mothers' education is greater in respect to wards' educational attainment than that of the father. The difference in performance between children born of educated (S.F. & above) mothers and illiterate mothers is as much as 15 in the state. Some districts show the difference to be as high as 20. It is worthwhile pointing out here that the difference between the performance of children born of mothers belonging to categories II & III is relatively little.

On Family Size (Table 5.14)

Among students surveyed the majority come from medium-sized families i.e. families with 6 to 8 heads. They constitute 43.5% when the state is considered as a whole. There are variations in this regard among the districts. About 36% families in West Bengal have been regarded as small-sized. Their number of heads being 5 and below. Calcutta has the highest number of such families. On the other hand Purulia, Murshidabad, etc. have the lowest number of small-sized families. As for large families Calcutta ranks the lowest with 14% and Murshidabad the highest with 29%. In West Bengal, students from small families have fared comparatively better and the difference in performance between the products of medium and

large families is negligible.

On Per-Capita Expenditure (Table 5.15) ²

From the table it is evident that most class IV students of West Bengal belong to families whose expenditure is below that of the poverty line. This is as much as 66%. The lowest number of such families belong to Calcutta and that too is no less than 48%. In districts like Hooghly, Burdwan and Howrah the figures stand between 57% to 58%. In this connection it should be remembered that these districts enjoy certain irrigational facilities. In contrast the Purulia figure of families below the poverty line stands at 84%. For Siliguri it is 81%, and for West Dinajpur it is 82%. These districts, it should be recalled, are industrially underdeveloped. Moreover the tribal population of these three districts is considerable. Incidentally the largest district in West Bengal i.e. Midnapore has about 73% students who hail from families falling under the category 'below the poverty line'.

The results reveal that the higher the expenditure, the higher is the achievement level. In districts like Coochbehar the difference is as much as almost 14.

On School Attendance (Table 5.16)

About 85% students in West Bengal have claimed that they come to

²Poverty line means per capita expenditure below Rs. 189 per month



school regularly. From the table it can be seen that absenteeism in Calcutta and nearby districts is relatively less than that in districts far from the state capital.

The table indicates that there is a close tie between regularity of attendance and educational performance. It should be noted that the difference in mean scores in the case of EVS is about 17. In Calcutta this difference is about 19 in Mathematics.

On Causes of Irregular Attendance (Table 5.17)

This is with reference to the earlier table. A probe into the reasons for not coming to school was carried out. The findings reveal that most of the students i.e. 48% among irregulars are irregular due to engagement in domestic work. Calcutta students (about 13%) suffer the least on this count. Coochbehar, Nadia, N&S 24 Parganas are relatively less affected because of domestic hassles. On the other hand Bankura (74%), Birbhum (70%), Burdwan (69%), Howrah (69%), Malda (74%), and West Dinajpur (68%) students are most affected by domestic chores. Domestic work, incidentally, might include family occupations like 'other factors'. Irregularity in attendance due to illness, economic factors, and other factors is uniformly frequent in the state. But there are wide variations in reasons for irregularity in attendance when it comes to individual districts. For Calcutta the major constraints are 'other factors' and 'illness'. Only a handful suffer for economic reasons. In the case of Jalpaiguri, and S 24 Parganas the major



constraint is again 'illness'. In contrast Malda, Siliguri, Nadia, Bankura, Purulia, and Burdwan are only marginally affected because of similar reasons. Economic reasons predominate effectively in the case of Coochbehar, Siliguri, North 24 parganas and Purulia. It may be mentioned here that 'domestic work' and 'economic reasons' in all probability overlap each other. This overlapping of categories is also possible among other categories. In a district like Nadia 'other factors' have been marked as the major constraint to regular school attendance. Among irregulars, the performance of those who have claimed illness to be the major constraint is relatively better.

On School Attendance During The Last 30 working Days (Table 5.18)

The results are based on school attendance registers. It is evident that 62% of class IV students throughout West Bengal were marked present for atleast 20 working days out of 30 working days. However there are wide variations among the districts. On the lower side (present for atleast 20 days) Birbhum records 37%. Nadia 37% and Murshidabad 39%. On the higher side is South 24 Parganas with 81%, Calcutta with 75%, Jalpaiguri with 73% and Midnapore with 70%. But the number attending school for 10 or less days shows an uniform pattern all over. It ranges from 0.66% to 8.3%. Needless to say the number of days present in the school is positively related to academic performance.

On study Time At Home (Table 5.19)

In the context of recent deliberations on relieving students of school bags (Jashpal Committee) it is interesting to note that about 25% class IV students of West Bengal spend 5 hours or more reading at home or completing their homework. Only 6.6% read for one hour or less. In spite of variations the pattern is similar throughout the state. It is evident that the quantum of study is directly related to the performance. This is true of all districts. But in the case of 4 districts, Coochbehar, Jalpaiguri, Siliguri and N-24 Parganas this linear relationship is much sharper than in other districts.

On Educational Help At Home (Table 5.20)

The table shows that 18.5% students are helped by their mothers. Against this, 31% students receive help from their fathers. About 17% receive help from their siblings while the rest get help from others or do not get any help at all. The districtwise distribution is dependent on educational resources available in the family. In districts like Purulia and West Dinajpur only 5% or 6% mothers can be of help. In contrast to this in Calcutta and its neighbouring districts, mothers are of more help to their children. It is clear from the table that those who get help from their mothers have scored better. This is consistent throughout the state with very few exceptions.

On Assistance From Private Tutor (Table 5.21)

In West Bengal 50% of class IV children have private tutors. It is surprising because 66% children come from families belonging to the category 'below the poverty line'. In the district of Calcutta 71% have private tutors. This is on the high side. On the other hand 28% to 30% students of Murshidabad, Bankura and Siliguri have private tutors to assist them. Here it should be noted that private tutors have contributed only marginally to the level of achievement. If West Bengal is taken as a whole, 2 marks for each subject would be the outer limit of such contribution from private tuition. In cases of certain districts the difference of mean scores is relatively greater.

On Money Spent on Private Tutors (Table 5.22)

It is evident from the table that about 23.2% of class IV students in West Bengal spend Rs. 15/- or less on private tuition. Another 39% spend Rs. 16/- to Rs. 25/- per month. About 29% spend Rs. 26/- to Rs. 50/-. The remaining 9% spend more than Rs. 50/-. Calcutta shows a higher expenditure on private tuition and the 'distribution' shifts towards the higher amount. In the case of individual districts other than Calcutta the distribution of expenditure follows the state pattern. Analysis of the table reveals that there is positive correlation between the amount of money spent and educational achievement. It may be noted that standard deviations vary

widely. This may be because only a small number of cases have been observed in certain categories.

On the Extent Of Domestic Work (Table 5.23)

Most students of the state are rarely or occasionally disturbed by domestic work. About 15.5% children are affected by domestic chores. There is some positive relation between involvement in domestic work and educational performance.

On Difficulties Because of Non-Availability of Books Etc. (Table 5.24)

About 22% class IV students of the state suffer because of this. On the other hand about 45% never face such difficulties. Those who suffer, score less. Those who do not, score more.

On Extra-textual Reading Habit (Table 5.25)

The majority of students in West Bengal (i.e. 55.5%) do not read any extra-textual material. Another 22% read rarely. 22% read occasionally while only 4.6% are habitual readers of extra-textual material. As for districts like West Dinajpur, Siliguri, Coochbehar, Bankura, Birbhum and Murshidabad, 70% or even more students never read books outside those in the prescribed syllabus. As opposed to this, in Calcutta about 61% chil-

dren occasionally or habitually read materials outside the prescribed texts. In passing it is to be noted that in districts like Jalpaiguri, Midnapore, Purulia the situation is marginally better. It is clear from the table that with the growth of reading habit the achievement level rises. The rise of level is as much as 20 or more for each subject. An analysis of districts like Coochbehar, Jalpaiguri, Howrah, Burdwan and Birbhum would bear out the point.

On Regularity Of Care Taken By Any Family Member (Table 5.26)

About 41% students have claimed that interest in their studies is taken regularly by family members. 16% have reported to the contrary. As for the rest the interest taken by others is occasional. The results indicate that there is some relationship between care taken and achievement.

On Family Member Concerned About Wards' Education (Table 5.27)

The table shows that the majority have said, i.e. 60%, that their fathers take interest in their studies. 18% have said that their mothers take interest. Another 12% have said that their siblings take interest. It is interesting to note that when mothers take interest their wards benefit the most. Conspicuously when fathers take interest the results are no better than when siblings or others take care.

On Guardians' Expectations Regarding Wards' Educational Future (Table 5.28)

Only 3.6% guardians/parents are satisfied with their wards' completion of primary education. Though only 9% mothers and 22% fathers belong to the educational level 'School Final and above' (See Tables 5.13 & 5.11), 52% want higher education for their children. A districtwise analysis shows that 76.5% parents of Calcutta want higher education for their children. This is comparable with Jalpaiguri where 71% parents want the same. Interestingly, even in Purulia there is similar expectation. On the other hand agriculturally better equipped districts like Hooghly, Burdwan and Birbhum show a lower level of expectation. There is a consistent relation between level of expectation and achievement in all 3 subjects.

On Guardians' / Parents' Expectation Regarding Wards' Future Occupation (Table 5.29)

As overwhelming majority of guardians / parents want white-collar jobs for their children though only 23.6% fathers are service-holders. It is interesting to note that North Bengal districts and districts situated on the eastern side of the Bhagirathi, except Murshidabad, show greater bias for service. Though 16% fathers are cultivators, only 2% fathers want their wards to belong to the same occupation. It is amazing to note that 2.7% fathers want their wards to be in business though 4.2% fathers are them-

selves businessmen. The mean score of those who expect their children to be service-holders is relatively higher. Only 0.5% expect nothing more than 'manual labour' of their wards. And this group has done miserably in all 3 subjects.

(E) On profile of students of government schools, high-achievers and low-achievers, and background factors (Table 5.30)

The relation between achievement level and socio-economic factors has already been discussed and so this table should be read with preceeding relevant tables. It is worthwhile to examine here the importance of socio-economic factors in the case of high-achievers and low-achievers. Since government schools have scored prominently high the background factors of such students have alongwith been discussed. High-achiever denotes the top 17% (approx) in each subject. In other words those who have scored more than 55 in Bengali and 61.8 in Mathematics. Low-achiever denotes the bottom 17% (approx) in each subject. In other words those who have scored less than 22.1 in Bengali and 26.2 in Mathematics. The middle group comprising about 67% (approx) has not been taken into account.

In government schools boys outnumber girls. This observation is based on 14 schools out of 24 such schools in the state. In the case of high-achievers in Bengali 54% are boys and 46% are girls. If this is compared with Table 5.6 it can be seen that there is no gender bias regarding achievement in language. This holds good for Mathematics as well. This absence of

gender-bias is also true of low-achievers.

As regards religion as a background factor it can be seen that in government schools 97% are Hindus and 2.6% are Muslims. The rest form a negligible number. Statewise in both Bengali and Mathematics, Hindus are proportionately ahead. But for Bengali the difference is marginal.

As regards caste as a background factor it should be noted that in government schools only 1% belong to the Scheduled Tribe group though state-wise at the class IV level they form 7%. 11% students of government schools belong to the Schedule Caste group while 'other castes' form an overwhelming majority. Statewise among high-achievers, students belonging to 'other castes' are proportionately ahead. In this context it is interesting to note that 3% among high-achievers belong to the Schedule Tribe group. On the other hand among low-achievers the proportion of Schedule Caste students is relatively higher.

There is no illiterate father among government school students. More than 87% fathers belong to the category 'School Final and above'. Among the high-achievers of the state, 7% to 8% have illiterate fathers. 40% of high-achievers in Bengali have fathers belonging to the category 'School Final and above'. But in the case of Mathematics 31% have fathers belonging to the same category. Surprisingly above 12% belonging to this set have found place among low-achievers.

An overwhelming majority of government school students are wards of service-holders. Wards of petty-traders and businessmen almost equal in proportion. Wards of all these 3 categories comprise 97% of government

school students. The remaining categories are barely represented.

Among the state high-achievers in Bengali are wards of service-holders. They form about 36% though they are a 24% among class IV students, irrespective of achievement. As for high achievers among children of manual labourers they compose 21% and 22% in Bengali and Mathematics respectively. It is understandable that among 'low-achievers', wards of manual labourers are more in number.

Most government school students have mothers whose education level is 'School Final and above'. About 2% mothers are illiterate. It is worth noting that in the case of high-achievers in Bengali the distribution of educational background categories is relatively uniform. Among low-achievers in the subject it is seen that the level of mothers' education is a determining factor.

In the case of government school students, the per capita family expenditure in 89% cases is above the poverty line. The effect of per capita expenditure among high-achievers, interestingly, is relatively less in Mathematics than in Bengali. About 62% of high-achievers in Mathematics come from the stratum 'below the poverty line'. It is also true that among low-achievers in the subject an overwhelming majority come from below the poverty line group.

The attendance in government schools is the best. It can be seen that high-achievers are regular in their attendance. On the other hand among the low-achievers just less than half are regular (more than 20 days out of 30 days) school-goers.

As for private tuition it is to be noted that only 38% of government school students have private tutors. The break-up between high-achievers and low-achievers of the state as regards private tutors is 52% and 42% respectively.

In case of government school students who take private tuition a large majority of them spend Rs. 50/- or more per month. Interestingly high-achievers of the state spend less than Rs. 50/- per month for private tuition. More than 90% of low-achievers, on the other hand, spend less than Rs. 50/- per month on private tuition.

As regards family members concerned about wards' education it is evident that fathers predominate both in cases of high-achievers and low-achievers. In the case of government schools, mothers (32%) rank second to fathers. But in cases of low-achievers it can be seen that 'others' outnumber fathers or mothers.

An uniform pattern of responses is clear in the case of government school students. 95% expect higher education. In the context of the state as a whole, more than 60% of high-achievers expect higher education and only 34% of low-achievers expect the same.

From what has been noted before it is obvious that government schools are better advantaged for social reasons. And in general it can also be said that performance in Bengali i.e., language, is more directly related to a happier socio-economic background than is Mathematics.

Table 5.5.1

Information regarding achievements of urban, rural and government school students, mean scores and standard deviations (SD), in Bengali

District	Urban		Rural		Govt.	
	Mean	SD	Mean	SD	Mean	SD
Coochbehar	46.4	14.6	33.2	16.8	-	-
Jalpaiguri	48.9	19.0	33.4	19.4	73.4	15.8
Siliguri	38.6	13.3	25.2	16.5	-	-
W.Dinajpur	50.8	11.0	34.8	15.1	-	-
Malda	31.0	11.3	34.2	15.1	67.6	10.2
Murshidabad	39.9	13.5	38.5	17.7	-	-
Nadia	32.7	12.7	36.4	14.5	72.3	23.9
24 Pgs (N)	44.9	15.9	37.2	18.1	61.6	12.2
24 Pgs (S)	38.1	10.7	41.7	18.4	-	-
Calcutta	37.3	16.3	-	-	75.2	16.1
Howrah	42.5	19.3	34.2	16.5	-	-
Hooghly	29.4	15.3	43.8	18.9	81.1	10.3
Midnapore	34.7	12.9	38.3	14.7	-	-
Bankura	33.1	22.2	28.6	13.9	-	-
Purulia	29.6	9.9	32.2	14.2	-	-
Burdwan	52.3	12.9	41.2	16.0	-	-
Birbhum	32.8	18.9	34.8	16.2	-	-
West Bengal	39.5	16.7	36.5	17.3	75.8	16.3

Table 5.5.2
Information regarding achievements of urban, rural and government school students, (mean scores and standard deviations (SD)) in Mathematics

District	Urban		Rural		Govt.	
	Mean	SD	Mean	SD	Mean	SD
Coochbehar	40.7	15.6	38.9	17.6	-	-
Jalpaiguri	53.9	14.1	36.1	20.0	72.9	19.9
Siliguri	39.5	14.7	32.7	19.3	-	-
W.Dinajpur	51.2	15.6	39.7	16.9	-	-
Malda	42.4	14.1	44.2	16.0	74.2	8.7
Murshidabad	42.2	17.8	46.1	18.0	-	-
Nadia	36.8	14.4	41.9	15.8	84.2	10.4
24 Pgs (N)	49.3	16.9	46.0	19.7	51.2	11.9
24 Pgs (S)	36.8	11.4	48.9	17.5	-	-
Calcutta	44.7	16.1	-	-	78.0	16.9
Howrah	49.6	18.9	42.2	17.1	-	-
Hooghly	34.0	15.5	50.0	19.6	79.6	14.8
Midnapore	38.5	17.5	43.7	16.3	-	-
Bankura	40.6	23.0	33.3	15.9	-	-
Purulia	33.6	6.3	35.6	17.8	-	-
Burdwan	56.2	19.0	46.0	17.0	-	-
Birbhum	45.1	21.8	40.2	18.4	-	-
West Bengal	44.5	17.3	42.6	18.5	77.8	16.7

Table 5.5.3

Information regarding achievements of urban, rural and government school students, mean scores and standard deviations (SD), in EVS

District	Urban		Rural		Govt.	
	Mean	SD	Mean	SD	Mean	SD
Coochbehar	47.0	14.2	38.6	19.1	-	-
Jalpaiguri	60.7	18.7	40.0	20.4	77.8	20.6
Siliguri	45.3	10.4	31.5	18.1	-	-
W.Dinajpur	47.4	16.7	38.4	16.1	-	-
Malda	37.0	11.8	37.5	20.0	73.5	10.0
Murshidabad	47.6	12.6	45.9	17.6	-	-
Nadia	38.1	13.0	43.4	14.4	81.0	20.4
24 Pgs (N)	52.2	15.4	47.9	17.8	69.8	11.7
24 Pgs (S)	39.6	11.0	48.0	16.5	-	-
Calcutta	49.7	14.4	-	-	76.3	26.2
Howrah	46.0	18.4	43.0	15.2	-	-
Hooghly	42.5	13.7	50.4	18.7	78.5	17.8
Midnapore	40.5	13.2	42.4	15.4	-	-
Bankura	36.3	16.1	32.5	14.1	-	-
Purulia	33.4	8.2	36.6	14.9	-	-
Burdwan	61.3	16.3	45.1	17.8	-	-
Birbhum	40.3	15.0	40.2	16.2	-	-
West Bengal	47.3	16.1	42.5	18.0	77.4	22.1

Table 5.6: Sex distribution of students,subject-wise mean scores,standard deviations(SD) and estimated population for each district

District	Sex	%	Bengali		Mathematics		E.V.S.		Population*
			Mean	SD	Mean	SD	Mean	SD	
Coochbehar	Boys	50.1	33.4	15.0	38.9	16.8	41.7	16.5	13335
	Girls	49.9	37.1	18.0	40.1	17.2	40.1	18.9	13255
Jalpaiguri	Boys	62.3	40.1	17.3	43.5	16.8	48.3	17.8	26783
	Girls	37.7	38.1	18.0	41.0	17.8	46.8	16.2	16198
Siliguri	Boys	66.9	30.5	16.0	39.1	17.2	38.6	14.7	5306
	Girls	33.1	29.6	14.8	33.9	13.9	36.5	16.3	2623
W.Dinajpur	Boys	58.8	36.1	15.6	40.2	17.8	39.8	15.2	21282
	Girls	41.2	38.5	15.4	42.6	16.6	40.0	17.7	14910
Malda	Boys	61.8	34.9	14.8	45.3	15.1	39.7	18.7	16083
	Girls	38.2	37.0	12.3	45.5	14.4	38.7	18.7	9946
Murshidabad	Boys	57.1	40.0	16.7	47.3	17.5	47.1	16.1	32169
	Girls	42.9	38.0	17.3	45.0	16.0	46.9	15.2	24157
Nadia	Boys	57.7	36.1	14.3	41.6	15.2	44.3	12.8	55585
	Girls	42.3	35.8	13.1	40.4	15.1	40.6	13.4	40830
24-Parg N	Boys	55.8	40.2	16.2	47.7	16.7	51.0	13.5	66973
	Girls	44.2	42.6	16.8	49.2	17.7	51.3	16.3	53088
24-Parg S	Boys	59.8	42.3	16.0	48.2	16.1	48.3	14.1	73717
	Girls	40.2	41.1	17.2	45.3	16.5	44.9	16.1	49508
Calcutta	Boys	58.4	35.7	17.2	45.0	16.8	49.8	13.2	29252
	Girls	41.6	42.7	16.2	47.1	16.7	54.1	14.3	20850
Howrah	Boys	48.4	38.6	16.3	46.4	16.2	46.1	14.2	22901
	Girls	51.6	39.0	19.7	46.1	19.9	44.3	17.9	24433
Hooghli	Boys	57.6	41.1	17.9	46.8	19.9	50.7	17.0	57418
	Girls	42.4	42.8	20.2	48.8	19.7	48.8	20.0	42241
Midnapur	Boys	58.5	36.8	14.7	41.5	16.3	40.9	14.3	85621
	Girls	41.5	37.7	14.6	42.2	15.5	43.2	15.3	60682
Bankura	Boys	65.3	30.4	13.9	34.8	15.8	33.8	12.9	24512
	Girls	34.7	27.5	15.2	32.9	17.0	32.3	15.1	13042
Purulia	Boys	74.7	33.6	14.4	34.9	19.6	35.6	17.1	26035
	Girls	25.3	30.6	13.1	38.6	15.3	41.0	10.9	8806
Burdwan	Boys	61.6	43.7	15.7	48.3	17.0	48.5	17.7	52360
	Girls	38.4	42.8	15.9	47.6	17.9	48.1	17.3	32625
Birbhum	Boys	59.5	35.3	16.3	42.1	17.4	40.9	16.1	21201
	Girls	40.5	33.4	16.5	38.5	19.7	39.7	15.3	14440
West Bengal	Boys	58.8	38.4	16.2	44.2	17.4	45.3	16.0	630543
	Girls	41.2	39.1	16.9	44.3	17.6	45.1	17.0	441641

* 'population' means total number of students by category

Table 5.7: Distribution of students by age,subject-wise mean scores,standard deviations(SD) and estimated population for each district

District	Age * in years	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Coochbehar	I	0.6	42.0	16.7	35.2	21.1	43.0	14.5	154
	II	18.3	34.7	15.6	38.0	15.8	37.7	18.6	4878
	III	52.4	37.5	16.3	42.6	16.8	42.3	17.7	13965
	IV	18.5	35.8	18.0	39.5	18.1	42.6	19.6	4934
	V	10.2	24.4	12.7	27.5	11.7	37.5	11.1	2720
Jalpaiguri	I	2.4	45.5	12.5	45.1	18.7	53.2	15.0	1038
	II	25.2	44.0	17.0	46.8	17.0	52.7	16.3	10972
	III	43.8	42.3	16.8	43.9	17.4	49.4	18.1	19030
	IV	16.3	32.9	15.3	36.8	16.0	42.4	14.5	7099
	V	12.3	28.1	16.7	37.9	16.2	38.9	13.0	5340
Siliguri	I	1.9	41.5	9.7	32.1	19.0	46.3	15.1	146
	II	20.0	33.7	13.5	32.4	13.9	38.3	14.3	1564
	III	34.0	36.1	14.8	41.8	16.7	40.5	15.3	2659
	IV	21.9	22.5	16.6	39.3	15.6	36.2	14.6	1713
	V	22.2	20.7	9.9	29.2	13.3	27.9	10.3	1733
W.Dinaipur	I	2.0	25.0	3.8	44.2	5.9	33.7	5.1	719
	II	19.7	41.3	14.2	40.7	18.2	41.3	11.9	7146
	III	44.5	38.7	16.3	42.2	18.3	40.2	17.7	16112
	IV	25.3	35.1	17.6	37.7	20.0	41.4	18.5	9149
	V	8.6	40.2	13.5	43.1	13.4	41.1	11.9	3098
Malda	I	3.3	34.3	15.2	44.3	13.4	41.5	11.3	845
	II	7.8	37.0	14.5	44.7	15.6	38.7	13.6	1972
	III	63.8	35.2	14.5	45.7	14.2	40.5	19.3	16176
	IV	13.6	38.4	11.8	45.6	17.1	40.1	19.0	3454
	V	11.5	33.4	13.1	45.2	14.6	31.4	19.6	2912
Murshidabad	I	1.4	42.2	13.0	48.9	17.6	51.4	10.7	769
	II	14.9	41.0	14.3	46.8	14.1	51.2	12.9	8463
	III	57.7	38.5	17.4	46.6	17.3	46.6	16.3	32765
	IV	17.3	41.3	18.0	47.4	17.6	46.6	16.9	9811
	V	8.8	34.9	14.8	42.1	15.6	42.0	13.3	4981

* I= Upto 8.9, II= 9.0 to 9.9, III= 10.0 to 10.9, IV= 11.0 to 11.9, V= 12.0 and above

Table 5.7 continued

Table 5.7

District	Age in years	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Nadia	I	9.2	30.5	10.2	37.3	12.5	38.2	15.0	8835
	II	29.8	37.8	15.0	43.8	16.5	44.5	13.9	28769
	III	39.0	37.4	13.6	42.2	15.2	42.7	12.6	37613
	IV	15.8	34.5	12.8	37.5	13.6	42.4	10.5	15222
	V	6.2	34.0	10.8	40.6	12.8	41.9	13.2	5974
24-Parg N	I	2.6	38.7	18.0	55.9	12.2	55.5	14.7	2999
	II	20.7	45.3	18.8	54.4	16.3	55.2	16.0	24098
	III	53.8	42.8	15.8	50.1	16.6	51.9	14.5	62746
	IV	13.8	39.6	14.4	44.8	16.5	49.6	13.8	16070
	V	9.2	33.0	15.0	37.4	16.1	45.5	11.7	10717
24-Parg S	I	1.5	47.2	16.3	54.5	18.5	53.2	11.4	1896
	II	18.3	45.5	14.1	48.7	15.3	46.9	14.9	22908
	III	48.6	42.1	17.4	48.5	16.2	49.6	14.7	60918
	IV	19.2	38.6	16.3	45.2	15.9	44.0	13.9	24049
	V	12.4	39.5	15.7	41.2	15.8	41.0	15.6	15503
Calcutta	I	0.6	29.0	4.5	36.3	2.1	53.3	1.7	279
	II	12.3	38.0	16.1	45.9	15.7	52.8	12.8	6130
	III	52.1	40.7	18.3	48.4	17.8	52.0	15.0	25903
	IV	16.8	37.8	14.3	46.1	14.3	52.8	12.9	8372
	V	18.2	33.2	14.8	38.9	14.3	48.5	12.4	9024
Howrah	I	1.3	43.6	11.7	51.6	10.8	56.0	8.5	601
	II	13.5	44.5	16.6	52.3	17.5	53.0	19.3	6341
	III	49.8	39.5	17.4	46.6	17.8	44.3	15.2	23411
	IV	22.6	38.9	20.1	45.8	19.1	44.9	15.8	10653
	V	12.8	31.2	16.9	37.5	17.0	39.1	14.9	6042
Hooghli	I	1.3	40.8	20.6	40.3	21.5	43.5	20.6	1289
	II	26.2	40.6	20.2	48.9	20.9	51.0	20.5	26035
	III	51.2	44.8	18.2	49.3	19.1	51.0	17.8	50825
	IV	13.1	37.1	17.4	43.6	20.5	46.2	16.9	12970
	V	8.3	34.9	17.6	39.8	18.0	46.6	15.3	8237

Table 5.7 continued

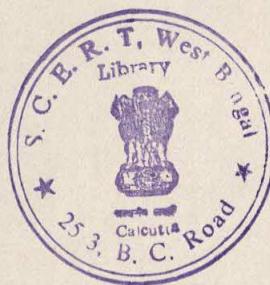


Table 5.7

District	Age in years	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Midnapur	I	2.7	44.9	14.3	48.4	16.0	44.1	18.1	3928
	II	19.9	42.1	13.4	44.5	15.6	45.4	14.2	28671
	III	47.8	37.2	15.0	42.9	15.7	41.1	14.2	68777
	IV	17.0	33.9	13.3	38.8	14.4	41.0	14.6	24415
	V	12.6	33.7	13.3	37.5	16.8	41.3	15.4	18063
Bankura	I	7.3	21.8	12.7	25.8	14.1	26.5	15.5	2737
	II	29.5	32.1	16.5	37.6	17.6	33.7	13.7	11076
	III	49.4	29.9	13.0	33.7	15.8	34.1	12.8	18567
	IV	8.3	27.3	12.9	33.1	14.1	34.9	12.5	3111
	V	5.5	28.6	13.6	36.0	14.4	34.9	13.5	2061
Purulia	I	8.8	38.5	15.0	40.7	26.1	47.4	9.5	3080
	II	39.8	34.1	15.1	43.2	15.2	40.3	15.4	13916
	III	31.5	30.8	13.1	31.1	19.4	33.5	18.1	11015
	IV	13.0	31.5	13.3	24.2	15.8	32.5	11.5	4549
	V	7.0	25.9	10.3	21.8	15.6	27.6	11.9	2442
Burdwan	I	0.4	50.2	10.5	46.4	16.8	50.0	12.4	343
	II	20.7	42.7	15.4	47.8	16.4	47.2	15.7	17407
	III	53.6	46.0	15.6	50.9	17.1	50.3	18.6	45064
	IV	17.2	38.4	14.7	44.7	16.4	45.4	16.5	14460
	V	8.1	37.3	16.4	39.5	16.4	40.4	11.9	6775
Birbhum	I	0.7	45.0	11.5	35.2	1.4	41.5	5.6	264
	II	24.1	31.8	15.5	39.0	16.5	40.1	16.5	8768
	III	52.2	35.0	16.7	41.1	18.8	40.3	14.7	18961
	IV	17.7	37.8	16.0	44.4	18.5	43.4	17.0	6430
	V	5.2	30.9	16.2	34.6	21.2	35.6	18.0	1897
West Bengal	I	2.8	36.2	15.7	42.4	18.2	43.3	16.7	29931
	II	21.5	40.5	16.6	46.1	17.4	46.7	16.7	229121
	III	49.1	40.0	16.7	45.8	17.5	46.1	16.7	524514
	IV	16.5	36.6	15.9	41.9	17.3	44.0	15.6	176470
	V	10.1	33.8	15.3	38.4	16.4	41.3	14.8	107528

Table 5.8: Distribution of students by religion, subject-wise mean scores, standard deviations(SD) and estimated population for each district

District	Religion	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Coochbehar	Hindu	83.0	35.8	17.1	39.7	17.1	40.3	18.3	22128
	Muslim	16.5	32.8	13.9	38.5	16.3	42.9	15.4	4410
	Christian	0.4	33.2	8.5	47.4	6.9	41.8	29.4	115
	Others	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Jalpaiguri	Hindu	91.4	40.5	17.0	43.1	17.4	48.6	17.2	39277
	Muslim	5.4	35.8	15.2	40.0	15.0	37.6	16.4	2339
	Christian	1.5	29.6	7.9	35.4	9.5	47.0	8.4	647
	Others	1.7	33.1	17.3	36.0	14.6	40.0	16.4	717
Siliguri	Hindu	97.2	30.1	15.7	37.1	16.6	37.8	15.3	7712
	Muslim	2.7	26.5	10.4	40.1	9.9	42.0	10.6	217
	Christian	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Others	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
W.Dinajpur	Hindu	79.0	37.5	15.3	41.5	17.3	39.4	16.3	28552
	Muslim	20.3	36.0	16.2	41.0	17.2	42.2	16.3	7334
	Christian	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Others	0.7	23.6	14.0	24.5	14.4	30.6	6.4	263
Malda	Hindu	47.3	38.2	13.5	46.8	16.9	38.2	19.0	12278
	Muslim	51.3	33.6	14.1	44.3	12.6	40.4	18.7	13305
	Christian	1.4	27.8	14.4	44.6	7.8	43.4	4.8	371
	Others	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Murshidabad	Hindu	32.2	41.7	16.8	46.3	17.3	46.9	15.3	18118
	Muslim	67.2	37.9	16.9	46.4	16.8	47.1	16.0	37878
	Christian	0.3	43.1	17.4	42.4	8.7	45.0	3.3	167
	Others	0.3	36.7	16.7	37.6	17.2	33.5	7.7	162
Nadia	Hindu	78.2	36.8	14.2	41.6	15.8	42.8	13.7	75436
	Muslim	21.7	33.0	12.1	39.1	11.8	42.4	10.2	20924
	Christian	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Others	0.1	34.1	0.0	43.4	0.0	22.6	0.0	54
24-Parg N	Hindu	79.5	42.9	16.2	50.1	16.8	51.8	14.8	95350
	Muslim	20.3	35.1	16.6	41.7	16.8	48.5	14.7	24374
	Christian	0.1	54.9	0.0	53.3	0.0	49.8	0.0	63
	Others	0.1	59.1	0.5	70.2	1.8	72.1	0.6	146
24-Parg S	Hindu	72.9	41.8	16.9	47.4	15.6	48.4	13.9	89690
	Muslim	26.0	41.5	15.4	45.8	18.1	42.7	17.1	32016
	Christian	1.0	51.2	13.4	55.3	15.0	56.8	10.9	1206
	Others	0.1	44.6	0.0	39.0	0.0	43.5	0.0	106

Table 5.8 continued

Table 5.8

District	Religion	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Calcutta	Hindu	93.5	39.3	17.0	46.3	16.8	52.3	13.7	46802
	Muslim	5.8	27.6	15.9	38.2	14.9	43.0	13.3	2923
	Christian	0.5	46.3	18.5	49.6	12.7	49.9	6.7	232
	Others	0.2	46.4	0.0	45.9	0.0	35.2	0.0	114
Howrah	Hindu	78.0	39.9	18.4	47.4	18.1	46.9	16.3	36910
	Muslim	21.6	35.3	16.2	42.7	17.6	39.8	13.7	10202
	Christian	0.4	26.0	11.5	33.7	19.1	40.4	11.5	179
	Others	0.1	40.9	0.0	43.1	0.0	33.6	0.0	42
Hooghli	Hindu	89.6	42.1	18.7	47.9	19.9	49.5	18.2	89266
	Muslim	10.2	38.7	20.8	45.1	18.7	52.8	19.4	10196
	Christian	0.1	55.5	0.0	65.2	0.0	66.8	0.0	92
	Others	0.1	22.7	0.0	15.0	0.0	37.5	0.0	105
Midnapur	Hindu	92.4	37.6	14.6	42.0	16.2	42.5	14.8	135094
	Muslim	6.1	31.1	14.6	40.0	12.8	35.8	11.7	8911
	Christian	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Others	1.5	35.9	10.9	39.3	14.2	28.1	15.1	2153
Bankura	Hindu	93.8	29.7	14.6	34.3	16.1	33.5	13.8	35241
	Muslim	4.8	25.9	10.8	37.5	15.6	31.9	12.5	1820
	Christian	0.3	37.9	10.0	17.2	3.8	37.3	4.3	101
	Others	1.0	20.7	11.2	15.6	14.6	26.0	8.6	391
Purulia	Hindu	94.7	33.2	14.1	35.3	18.6	37.7	16.1	32847
	Muslim	4.6	25.1	12.2	46.3	17.6	23.9	5.9	1595
	Christian	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Others	0.7	33.9	7.7	43.7	5.3	35.4	2.9	239
Burdwan	Hindu	85.3	43.4	15.5	48.5	17.4	48.4	17.4	72428
	Muslim	14.2	42.1	17.0	44.9	15.6	47.6	18.2	12068
	Christian	0.1	55.4	0.0	71.4	0.0	69.1	0.0	61
	Others	0.4	42.2	14.3	38.2	18.2	39.2	10.3	365
Birbhum	Hindu	68.8	33.9	16.6	38.8	17.9	38.3	15.0	24504
	Muslim	29.8	36.1	16.1	44.3	19.2	45.3	16.2	10631
	Christian	0.1	29.3	0.0	20.7	0.0	36.3	0.0	48
	Others	1.3	37.4	12.2	53.9	13.3	42.5	23.0	458
West Bengal	Hindu	80.4	39.2	16.5	44.5	17.7	45.6	16.4	861642
	Muslim	18.8	36.5	16.3	43.4	16.5	44.2	16.3	201151
	Christian	0.3	41.0	16.5	46.4	16.4	50.2	12.7	3293
	Others	0.5	35.1	14.0	38.3	17.2	34.0	16.4	5324

Table 5.9: Distribution of students by mother tongue, subject-wise mean scores, standard deviations(SD) and estimated population for each district

District	Mother tongue	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Coochbehar	Bengali	99.1	35.3	16.7	39.6	17.0	40.7	17.9	26422
	Hindi	0.3	46.2	2.4	43.1	1.2	51.5	2.2	87
	Others	0.5	32.6	7.1	37.7	5.2	47.5	16.1	144
Jalpaiguri	Bengali	97.0	40.9	17.2	43.1	17.4	48.7	17.6	38672
	Hindi	1.9	28.8	17.7	37.2	14.1	46.1	12.2	759
	Others	1.1	23.5	12.8	37.9	16.4	43.6	12.7	447
Siliguri	Bengali	94.5	31.9	15.5	38.0	16.4	38.3	16.1	6815
	Hindi	2.5	21.1	8.3	30.8	8.1	33.4	12.4	183
	Others	3.0	20.6	20.6	43.6	11.4	28.9	9.0	214
W.Dinajpur	Bengali	91.1	37.7	15.6	41.5	17.7	40.0	16.9	32388
	Hindi	6.4	33.2	8.4	43.7	3.6	38.8	5.6	2278
	Others	2.5	23.2	17.3	23.0	16.0	34.4	10.4	897
Malda	Bengali	99.0	36.0	13.7	45.3	14.5	39.0	18.8	25175
	Hindi	0.6	27.5	9.3	38.2	16.8	34.3	7.0	148
	Others	0.4	21.1	16.8	42.9	9.6	40.9	3.8	111
Murshidabad	Bengali	98.8	39.2	17.0	46.4	17.1	47.1	15.6	55599
	Hindi	0.1	17.0	0.0	29.3	0.0	50.0	0.0	82
	Others	1.1	49.0	5.9	49.5	11.2	54.6	8.8	594
Nadia	Bengali	99.5	36.1	13.8	41.3	14.9	42.8	13.1	95862
	Hindi	0.5	25.6	13.5	29.2	2.1	28.9	15.0	447
	Others	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
24-Parg N	Bengali	99.6	41.4	16.6	48.5	17.1	51.2	14.8	118837
	Hindi	0.3	44.7	21.1	52.3	9.8	56.2	12.5	317
	Others	0.2	39.6	13.8	28.1	18.6	42.2	6.8	209
24-Parg S	Bengali	99.8	41.9	16.6	47.1	16.3	47.1	15.0	122754
	Hindi	0.2	30.6	11.4	45.4	11.6	23.0	13.5	266
	Others	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Table 5.9 continued

Table 5.9

District	Mother tongue	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Calcutta	Bengali	96.0	39.1	17.2	46.0	17.0	52.0	13.8	48043
	Hindi	1.1	28.4	11.3	40.4	5.2	38.9	11.5	526
	Others	2.9	29.7	12.2	42.5	10.9	47.3	9.7	1473
Howrah	Bengali	98.3	38.8	18.2	46.2	18.2	45.2	16.2	46518
	Hindi	0.2	59.2	4.2	61.2	4.2	56.5	1.4	111
	Others	1.4	42.7	4.8	53.3	9.5	49.2	4.0	674
Hooghli	Bengali	99.1	41.8	18.9	47.6	19.8	49.8	18.4	98173
	Hindi	0.3	42.9	29.0	52.1	30.0	53.8	22.5	305
	Others	0.6	43.4	18.6	34.2	18.7	48.1	12.0	609
Midnapur	Bengali	98.9	37.4	14.9	41.9	16.1	42.3	14.8	138370
	Hindi	0.5	40.0	7.6	46.5	10.1	45.4	3.0	701
	Others	0.6	42.2	7.3	39.4	17.0	38.2	2.2	780
Bankura	Bengali	97.7	29.7	14.3	34.4	16.1	33.4	13.8	35885
	Hindi	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Others	2.3	25.8	13.6	29.1	16.3	34.4	10.7	841
Purulia	Bengali	97.5	33.1	14.5	37.5	17.7	38.6	14.4	31614
	Hindi	0.3	28.1	0.0	54.6	0.0	21.0	0.0	99
	Others	2.2	49.2	7.4	37.0	9.1	42.1	8.0	710
Burdwan	Bengali	99.0	43.0	16.0	47.7	17.5	48.5	17.6	81989
	Hindi	0.7	37.4	10.9	46.3	14.4	46.0	14.7	610
	Others	0.3	16.8	0.0	31.8	0.0	25.2	0.0	224
Birbhum	Bengali	98.1	35.0	16.3	41.2	18.3	40.8	15.4	34776
	Hindi	1.9	11.0	11.4	13.1	13.6	17.6	18.2	685
	Others	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
West Bengal	Bengali	98.5	38.9	16.5	44.5	17.4	45.5	16.4	1037898
	Hindi	0.7	31.6	15.6	40.2	15.2	39.1	15.4	7613
	Others	0.8	34.3	16.0	37.9	16.2	42.3	11.7	7935

Table 5.10: Distribution of students by caste,subject-wise mean scores, standard deviations(SD) and estimated population for each district

District	castes*	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Coochbehar	I	57.1	33.3	16.9	37.4	17.1	37.8	17.5	12459
	II	0.7	31.7	7.4	36.1	6.4	56.0	6.3	159
	III	42.2	38.9	15.6	42.9	16.6	43.1	18.7	9212
Jalpaiguri	I	43.4	38.1	15.4	39.3	16.2	43.8	16.9	16727
	II	14.5	27.7	16.2	38.3	15.0	42.0	11.3	5593
	III	42.0	44.6	18.5	47.0	18.6	53.7	18.1	16183
Siliguri	I	69.1	28.3	15.4	34.3	16.9	34.6	15.4	5028
	II	14.3	30.9	16.6	47.4	17.4	43.8	14.5	1044
	III	16.6	33.7	16.5	41.2	13.9	45.9	11.7	1207
W.Dinajpur	I	44.9	36.4	13.3	40.3	15.9	38.3	14.4	12275
	II	10.2	26.2	18.9	31.7	16.8	30.1	18.0	2794
	III	44.9	39.9	15.9	44.6	17.5	42.6	18.0	12257
Malda	I	29.9	38.7	12.8	43.2	19.5	45.7	13.4	4556
	II	8.3	25.6	19.6	45.5	15.5	47.8	15.4	1265
	III	61.8	35.4	12.5	43.8	14.5	37.5	20.3	9433
Murshidabad	I	16.7	39.4	15.9	45.7	16.5	45.3	12.8	3455
	II	2.1	33.4	15.0	43.2	9.3	42.7	11.9	431
	III	81.3	40.1	16.6	47.1	17.0	48.3	15.5	16846
Nadia	I	22.7	36.7	13.6	39.5	16.3	40.2	13.9	17078
	II	1.5	31.9	12.2	35.7	16.2	40.5	13.0	1160
	III	75.8	36.5	14.9	42.1	15.5	43.2	13.9	56999
24-Parg N	I	35.2	40.7	16.5	52.5	16.5	52.1	14.9	32621
	II	2.1	32.8	12.2	44.6	19.0	45.9	19.4	1903
	III	62.7	41.9	16.6	46.9	16.7	51.8	14.0	58082
24-Parg S	I	49.3	42.7	15.7	46.8	15.3	48.1	13.5	50043
	II	6.8	42.6	11.7	40.4	13.8	41.8	10.0	6927
	III	43.9	41.5	17.9	46.0	18.4	48.9	14.2	44496

* I= Scheduled caste, II= Scheduled tribes, III= Other castes

Table 5.10 continued

Table 5.10

District	castes	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Calcutta	I	26.0	37.4	14.6	42.5	14.5	53.7	12.7	11612
	II	8.5	33.3	13.4	47.2	19.4	45.7	10.5	3781
	III	65.6	39.5	18.4	46.4	17.4	51.8	13.6	29313
Howrah	I	23.2	35.4	18.1	41.2	17.7	42.2	14.5	9201
	II	4.4	31.5	15.0	40.6	15.8	42.3	9.8	1762
	III	72.4	40.9	17.4	48.9	18.1	46.3	16.5	28727
Hooghli	I	29.9	40.2	17.1	46.9	18.6	47.7	15.7	27001
	II	6.6	35.9	17.8	37.2	20.5	35.7	20.6	5971
	III	63.5	43.9	20.2	50.2	20.8	53.6	18.1	57404
Midnapur	I	30.1	33.1	13.3	37.0	16.8	42.6	13.3	37780
	II	12.2	36.8	12.2	40.0	15.0	41.5	17.0	15294
	III	57.8	40.0	14.6	44.1	15.6	43.4	14.2	72566
Bankura	I	21.7	26.9	13.9	32.9	15.5	31.9	12.7	7679
	II	10.1	25.3	12.2	28.9	14.6	29.9	11.7	3588
	III	68.2	31.0	14.5	35.4	16.4	34.4	14.2	24132
Purulia	I	22.1	35.9	16.4	38.4	15.1	44.1	14.4	6720
	II	19.7	31.4	11.1	26.4	17.3	31.6	9.7	6006
	III	58.2	32.3	14.3	41.1	16.3	39.4	13.8	17734
Burdwan	I	29.9	40.2	16.3	44.0	15.6	44.8	12.6	20697
	II	3.8	44.0	14.3	45.9	15.9	47.1	12.5	2639
	III	66.3	42.2	14.3	47.8	16.1	48.4	17.7	45888
Birbhum	I	30.0	29.8	16.0	34.5	18.9	35.0	16.1	8347
	II	7.0	34.3	10.0	39.8	13.3	49.7	12.7	1949
	III	63.0	36.3	17.3	42.6	18.7	41.7	14.9	17515
West Bengal	I	32.5	37.8	16.0	43.0	17.4	44.8	15.3	277017
	II	6.9	34.1	15.0	38.5	17.1	40.1	15.5	58699
	III	60.6	39.8	16.8	45.4	17.5	46.8	16.4	515973

Table 5.11: Distribution of students by fathers' education, subject-wise mean score, standard deviations (SD) and estimated population for each district

District	Education *	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Coochbehar	I	12.1	34.5	16.0	37.6	17.9	41.0	14.5	3270
	II	34.2	31.1	13.8	36.2	15.0	38.8	16.6	9251
	III	31.6	31.8	16.0	38.7	17.0	38.6	19.2	8547
	IV	22.0	48.6	15.9	48.9	16.0	46.7	19.5	5945
Jalpaiguri	I	13.0	33.1	14.2	37.0	14.8	39.8	15.3	5673
	II	23.9	31.2	16.4	38.2	15.3	41.8	14.4	10416
	III	31.8	37.9	15.7	39.0	17.4	45.6	13.8	13859
	IV	31.2	50.4	16.1	52.1	15.8	59.6	15.8	13569
Siliguri	I	24.3	25.2	16.2	36.5	14.9	31.9	13.9	1900
	II	31.6	28.4	14.7	35.1	18.2	37.8	18.7	2473
	III	34.9	35.2	12.9	38.4	14.6	39.3	12.9	2726
	IV	9.2	40.5	13.6	42.2	14.4	47.6	9.3	717
W.Dinajpur	I	21.1	31.3	15.2	36.8	16.4	35.8	18.5	7676
	II	34.3	34.0	14.8	39.6	17.2	38.6	16.3	12490
	III	26.9	38.2	15.4	44.3	15.9	43.9	13.6	9803
	IV	17.7	47.7	11.6	47.0	17.7	41.2	15.8	6461
Malda	I	25.2	31.7	13.7	43.4	16.0	33.4	21.5	6154
	II	25.0	32.3	13.4	43.6	13.8	39.2	18.3	6109
	III	28.1	37.9	13.4	47.9	14.6	36.8	19.6	6873
	IV	21.8	41.5	13.3	47.5	13.1	43.9	17.6	5331
Murshidabad	I	22.2	36.1	16.1	44.4	17.3	43.5	14.2	12697
	II	27.4	35.5	15.9	44.9	17.3	43.3	15.3	15679
	III	34.9	40.5	17.3	46.5	16.2	48.9	15.5	19939
	IV	15.5	46.2	16.8	50.6	17.6	54.8	14.4	8894
Nadia	I	21.4	32.7	12.2	40.5	11.9	41.8	13.0	20628
	II	25.7	35.2	13.9	40.7	16.1	43.3	12.9	24737
	III	33.3	36.3	13.5	41.0	15.5	42.9	11.8	32083
	IV	19.5	41.3	14.1	44.0	15.6	44.1	14.7	18760
24-Parg N	I	11.2	35.9	18.5	45.8	17.9	48.1	15.3	13295
	II	27.5	38.2	15.9	45.7	17.2	48.6	13.9	32726
	III	39.0	41.6	15.9	48.2	17.0	50.3	15.7	46426
	IV	22.3	47.8	15.7	53.7	15.5	57.6	12.1	26537
24-Parg S	I	9.0	40.9	13.1	44.0	13.8	43.8	15.0	11205
	II	30.0	38.6	16.1	45.8	17.9	46.3	14.2	37536
	III	40.0	41.9	16.8	47.8	15.7	48.5	14.5	49995
	IV	21.1	46.9	16.8	48.8	16.2	49.4	13.3	26398

* I=Illiterate, II=Literate, III=Upto class X, IV=School Final and above

Table 5.11 continued

Table 5.11

District	Education	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Calcutta	I	5.2	30.0	15.0	42.6	16.5	52.8	15.8	2558
	II	30.1	34.2	15.3	42.5	16.2	48.6	11.0	14890
	III	32.2	38.1	14.9	45.8	14.4	50.0	12.3	15959
	IV	32.6	44.6	19.4	48.9	19.1	55.1	16.2	16123
Howrah	I	6.3	29.1	15.1	36.0	15.5	38.7	11.6	2973
	II	30.6	33.6	17.6	41.0	18.6	42.2	14.6	14478
	III	39.5	37.7	16.3	45.1	16.6	44.6	15.3	18683
	IV	23.5	50.4	17.0	59.0	14.6	51.8	18.7	11105
Hooghli	I	8.7	32.6	14.5	39.7	19.7	46.5	17.9	8327
	II	34.1	41.8	19.0	49.6	18.8	47.5	20.8	32689
	III	37.0	42.4	17.9	47.1	17.6	50.5	15.8	35459
	IV	20.2	49.4	18.1	56.9	18.0	55.7	17.0	19305
Midnapur	I	5.0	32.7	13.5	37.1	15.8	37.6	11.4	7117
	II	31.6	35.3	14.4	41.5	15.3	41.2	14.4	45268
	III	42.9	36.2	14.4	41.2	15.7	41.5	14.6	61446
	IV	20.6	43.6	13.4	46.0	16.2	45.4	14.4	29447
Bankura	I	15.1	28.4	13.4	32.3	16.3	32.3	12.9	5655
	II	37.3	28.1	13.0	32.1	15.5	33.0	13.8	14022
	III	27.6	27.6	14.2	33.8	14.8	31.6	13.2	10367
	IV	20.0	36.7	15.5	42.2	15.2	39.2	12.5	7509
Purulia	I	23.2	31.8	14.6	25.3	19.4	29.9	20.8	8005
	II	39.0	34.2	14.3	34.4	21.5	34.5	15.3	13448
	III	25.9	31.0	14.6	39.5	15.0	43.8	12.4	8950
	IV	11.9	36.8	11.8	48.5	12.4	42.1	10.0	4118
Burdwan	I	9.5	42.7	14.1	45.2	16.6	47.5	15.7	7986
	II	23.3	39.0	15.2	46.0	16.4	46.0	15.4	19678
	III	32.6	41.3	14.9	45.3	17.3	45.4	17.1	27550
	IV	34.7	49.2	15.3	53.4	16.9	55.3	16.7	29277
Birbhum	I	10.7	26.2	18.3	31.1	23.0	35.6	19.4	3940
	II	30.7	32.6	15.8	36.4	18.0	39.5	15.9	11271
	III	36.9	36.2	15.3	43.8	17.1	41.3	14.4	13549
	IV	21.7	40.1	16.3	46.7	16.0	45.3	13.8	7986
West Bengal	I	12.1	33.9	15.3	39.8	17.3	41.0	16.7	129068
	II	29.8	35.9	16.0	42.4	17.7	43.3	15.9	317172
	III	35.9	38.6	16.0	44.3	16.6	45.4	15.5	382221
	IV	22.3	46.0	16.2	50.2	16.9	50.9	16.2	237492

Table 5.12: Distribution of students by fathers' occupation, subject-wise mean scores, standard deviations (SD) and estimated population for each district

District	Occupation *	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Coochbehar	I	35.8	27.6	13.7	33.4	14.3	35.2	16.0	9539
	II	4.3	36.9	9.8	33.5	15.0	36.4	17.8	1144
	III	19.5	48.3	17.7	48.5	16.9	48.2	20.7	5208
	IV	8.1	39.9	13.8	42.2	11.7	43.8	13.4	2152
	V	1.2	33.3	5.9	30.4	9.5	40.2	8.1	326
	VI	27.1	34.8	15.8	41.8	18.6	42.0	17.5	7232
	VII	3.9	33.5	11.9	37.6	12.9	40.6	16.0	1050
Jalpaiguri	I	33.5	35.1	15.0	39.1	15.3	41.7	14.7	14363
	II	5.8	39.5	12.6	40.8	15.9	48.7	12.2	2468
	III	28.8	47.0	17.0	49.5	16.8	54.6	18.4	12361
	IV	21.8	37.6	16.2	38.0	17.7	45.7	17.5	9329
	V	2.6	52.9	16.3	46.9	21.6	65.8	10.5	1101
	VI	4.9	38.1	16.2	44.1	14.3	47.0	11.9	2100
	VII	2.7	35.2	19.5	47.2	14.0	48.2	20.3	1149
Siliguri	I	46.5	25.4	15.7	34.9	16.7	34.8	16.6	3612
	II	7.3	29.2	11.7	37.0	14.1	37.4	8.9	565
	III	14.1	39.3	14.4	43.8	16.9	44.9	14.2	1093
	IV	16.9	37.6	12.1	42.5	15.6	44.6	12.2	1314
	V	0.6	44.0	21.7	54.2	23.3	50.7	16.6	46
	VI	12.6	26.8	14.3	34.2	14.9	31.9	11.6	978
	VII	2.1	31.7	16.0	33.6	9.5	38.6	10.4	164
W.Dinajpur	I	59.3	34.3	13.6	38.7	17.1	38.8	15.1	21307
	II	4.5	39.0	13.4	43.4	13.7	43.1	11.5	1618
	III	13.5	47.7	13.2	52.0	13.3	41.5	15.5	4848
	IV	8.3	42.7	15.4	49.0	13.6	49.6	11.4	2997
	V	0.4	43.6	7.0	32.8	12.7	37.6	11.4	140
	VI	4.9	33.8	16.9	35.9	20.4	42.0	14.8	1749
	VII	9.1	39.6	17.7	40.4	19.5	38.6	21.2	3271
Malda	I	32.0	32.7	14.8	42.7	14.3	39.1	16.3	8112
	II	3.6	34.1	14.5	43.6	15.9	30.2	20.4	914
	III	16.4	40.8	13.9	48.1	14.4	43.0	19.1	4166
	IV	15.6	39.1	11.3	49.0	16.8	35.2	25.3	3957
	V	1.0	34.2	11.8	47.4	9.7	25.0	23.2	262
	VI	14.2	34.3	11.9	43.4	14.1	37.2	15.8	3605
	VII	17.1	34.0	15.8	49.0	11.6	42.6	17.6	4342
Murshidabad	I	48.0	39.8	16.2	46.6	16.6	47.9	16.2	27041
	II	7.0	36.0	18.8	44.1	15.8	42.5	15.0	3920
	III	15.4	45.1	16.6	47.6	17.7	53.3	13.3	8648
	IV	16.3	38.0	15.8	47.0	18.5	45.4	15.4	9201
	V	1.8	38.1	18.8	41.6	15.8	44.6	10.6	1012
	VI	6.7	33.1	17.7	45.4	16.5	42.5	16.2	3796
	VII	4.8	35.7	16.8	44.5	16.0	42.0	13.0	2706

* I= Manual Labourer, II= Skilled Labourer, III= Service Holder, IV= Petty Trader, V= Businessman, VI= Cultivator, VII= Other Gainful or Non-gainful Occupations

Table 5.12 continued

Table 5.12

District	Occupation	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Nadia	I	26.9	33.1	11.8	41.4	12.9	42.3	11.8	25954
	II	6.0	34.2	14.6	37.1	16.1	41.8	12.1	5770
	III	18.5	41.4	12.2	45.0	15.1	46.1	14.3	17880
	IV	19.8	36.3	13.9	39.0	14.2	41.5	11.0	19102
	V	4.2	35.6	17.1	38.5	19.7	43.9	12.0	4080
	VI	14.8	37.3	14.3	43.7	17.5	44.8	15.1	14292
	VII	9.7	34.0	15.7	37.4	13.2	38.8	12.6	9334
24-Parg N	I	10.1	37.4	19.4	48.0	19.1	48.3	16.1	12045
	II	8.9	40.4	13.8	46.3	15.8	51.2	13.5	10606
	III	25.9	47.1	15.1	51.3	15.7	54.9	12.5	30833
	IV	24.8	39.5	16.9	49.4	16.6	51.5	14.6	29510
	V	8.7	44.0	11.1	47.5	15.1	52.1	11.9	10319
	VI	16.1	37.8	18.6	47.3	19.2	48.5	16.4	19136
	VII	5.6	43.1	12.0	46.2	14.5	48.5	17.3	6660
24-Parg S	I	16.0	43.0	16.7	48.9	17.4	48.5	13.3	20005
	II	5.5	38.1	18.0	45.1	16.9	45.4	14.8	6833
	III	30.0	45.2	15.1	48.0	15.3	49.1	13.2	37471
	IV	21.2	38.0	18.6	45.0	15.3	47.3	13.9	26537
	V	4.4	46.9	13.9	48.3	12.6	41.8	17.0	5540
	VI	14.1	43.5	16.3	51.1	18.7	48.9	16.1	17655
	VII	8.7	37.0	12.1	39.9	14.5	39.2	17.3	10882
Calcutta	I	3.3	43.8	12.0	41.2	15.0	57.5	11.4	1615
	II	14.0	34.2	15.2	44.9	19.4	47.9	11.7	6920
	III	48.4	41.0	17.5	47.1	16.5	53.4	15.4	23930
	IV	18.4	37.6	17.1	45.3	16.1	50.5	11.3	9123
	V	8.6	39.1	15.6	45.2	17.8	53.5	14.4	4259
	VI	0.3	14.9	1.6	16.8	16.8	46.2	4.2	155
	VII	7.0	32.8	19.5	42.6	14.9	48.4	9.2	3465
Howrah	I	8.0	34.3	15.9	41.7	17.6	41.7	14.5	3803
	II	9.6	36.0	13.5	41.7	15.4	44.6	11.7	4557
	III	37.3	42.3	19.7	50.3	18.5	47.5	17.7	17627
	IV	15.8	40.1	16.5	48.2	16.8	47.1	16.6	7459
	V	13.2	40.4	17.2	49.9	16.8	45.2	14.2	6245
	VI	8.8	34.6	16.4	39.6	18.0	41.9	14.0	4174
	VII	7.2	32.4	17.8	36.9	17.4	38.3	17.5	3403
Hooghli	I	24.2	36.3	18.5	45.3	20.6	45.4	18.3	24115
	II	5.4	44.3	18.8	39.9	22.1	49.7	14.4	5399
	III	21.1	44.4	18.3	51.1	18.4	50.9	19.3	20993
	IV	17.3	38.6	16.9	48.0	17.4	48.0	15.1	17208
	V	4.7	52.0	19.0	55.9	22.2	54.1	17.1	4634
	VI	15.9	44.0	21.6	47.6	20.1	49.2	16.9	15838
	VII	11.5	44.3	16.6	46.9	17.5	57.9	23.3	11409

Table 5.12 continued

Table 5.12

District	Occupation	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Midnapur	I	36.8	36.0	14.9	42.3	16.6	40.8	14.9	52608
	II	2.8	37.7	12.8	42.8	13.0	43.5	13.5	4039
	III	15.9	43.1	13.2	46.8	15.2	46.8	14.8	22706
	IV	6.9	37.5	13.0	40.8	15.4	44.4	13.2	9805
	V	1.9	41.9	11.8	45.6	13.5	46.0	16.4	2739
	VI	26.1	36.5	14.4	39.6	15.1	40.5	14.8	37301
	VII	9.6	31.6	15.5	37.9	15.0	37.7	11.8	13790
Bankura	I	46.9	28.6	13.0	31.1	15.6	31.9	12.4	17613
	II	8.5	24.6	11.6	29.1	12.2	27.4	15.2	3189
	III	15.2	34.1	16.9	41.4	16.7	37.4	13.9	5702
	IV	7.5	32.2	16.4	39.5	16.3	34.6	13.7	2834
	V	1.1	38.2	13.3	38.7	14.9	43.0	8.6	416
	VI	15.0	30.6	14.0	38.1	16.0	36.4	14.5	5629
	VII	5.8	28.2	14.8	33.1	14.4	34.4	13.5	2170
Purulia	I	51.8	32.1	14.0	30.2	21.0	33.2	17.4	18041
	II	5.1	37.7	15.3	42.2	10.3	40.1	12.3	1771
	III	20.3	31.0	14.7	44.1	13.9	38.4	14.5	7069
	IV	3.1	39.5	8.8	47.0	5.8	45.2	15.7	1083
	V	1.2	16.4	14.5	31.6	4.9	47.6	5.8	421
	VI	11.3	34.2	11.8	39.4	14.2	40.3	8.0	3948
	VII	7.2	40.0	13.7	41.4	13.3	45.1	11.5	2505
Burdwan	I	25.4	40.8	15.3	45.8	16.7	44.8	15.3	21445
	II	3.1	44.5	12.4	45.3	14.5	50.3	15.0	2646
	III	29.2	49.5	15.8	51.9	17.8	53.2	17.5	24633
	IV	14.2	42.3	14.5	46.8	15.3	47.0	16.3	11985
	V	4.4	47.1	16.7	50.3	14.2	51.1	16.6	3722
	VI	18.8	39.0	15.3	47.7	17.4	46.0	19.6	15876
	VII	4.7	37.6	16.2	44.5	19.3	42.2	20.3	3990
Birbhum	I	28.0	33.7	16.8	40.6	19.6	38.8	18.0	9962
	II	0.5	28.9	26.2	68.1	10.4	53.2	4.9	177
	III	17.3	37.9	14.8	42.8	16.2	41.9	13.9	6161
	IV	8.3	41.1	14.8	48.5	13.2	44.6	12.7	2935
	V	0.2	46.1	0.0	55.4	0.0	39.7	0.0	71
	VI	37.9	33.5	16.5	38.7	19.6	40.4	15.9	13486
	VII	7.8	30.7	16.7	38.7	14.5	38.6	13.4	2757
West Bengal	I	27.3	35.6	15.8	41.5	17.9	41.7	16.1	291188
	II	5.9	37.4	15.8	42.3	17.0	45.1	14.8	62545
	III	23.6	44.0	16.4	48.5	16.6	49.6	16.2	251335
	IV	15.6	38.6	16.2	45.3	16.5	46.6	15.1	166540
	V	4.2	43.2	16.1	47.3	17.3	48.7	15.6	45342
	VI	15.6	37.6	16.7	43.7	18.2	44.0	16.4	166959
	VII	7.8	36.4	16.2	41.5	15.9	43.1	18.1	83056

Table 5.13: Distribution of students by mothers' education, subject-wise mean scores, standard deviations (SD) and estimated population for each district

District	Education *	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Coochbehar	I	34.5	34.3	15.7	38.7	17.3	40.4	16.7	9494
	II	34.1	29.4	13.3	36.9	14.8	37.4	17.8	9377
	III	17.6	38.2	15.9	40.3	17.4	42.6	17.7	4829
	IV	13.8	54.9	11.9	52.1	14.7	49.5	21.3	3806
Jalpaiguri	I	34.9	32.0	17.6	39.9	14.7	40.7	14.4	15449
	II	21.7	35.1	15.3	36.0	16.0	44.8	15.5	9595
	III	28.5	42.6	15.2	44.0	18.1	50.5	15.7	12614
	IV	15.0	56.6	15.2	58.4	12.6	66.4	12.9	6636
Siliguri	I	48.9	25.5	15.4	35.2	16.4	32.2	16.2	4009
	II	29.4	36.3	13.1	40.4	16.6	44.3	15.2	2412
	III	16.0	39.8	11.9	42.6	10.6	39.8	11.6	1314
	IV	5.7	46.1	10.7	41.2	11.3	52.6	6.2	464
W.Dinajpur	I	48.8	33.4	16.0	37.1	17.8	36.8	17.5	17766
	II	28.0	38.5	14.4	44.5	16.7	42.4	15.8	10175
	III	16.8	42.5	12.6	45.1	15.6	41.5	14.7	6124
	IV	6.4	43.4	12.9	48.7	10.2	44.8	8.1	2322
Malda	I	50.8	31.9	13.5	43.2	15.2	33.1	20.0	12140
	II	24.9	38.4	12.0	45.0	12.4	41.9	16.1	5946
	III	16.5	40.2	15.6	50.7	15.1	35.6	24.0	3953
	IV	7.8	47.3	10.9	52.0	14.5	53.6	12.0	1868
Murshidabad	I	43.4	37.3	16.7	45.2	17.0	44.4	15.2	25829
	II	29.8	37.9	17.5	45.2	16.7	47.3	15.7	17720
	III	23.0	44.1	15.9	47.8	17.8	50.6	14.6	13701
	IV	3.9	48.4	17.6	48.3	20.2	58.9	14.8	2306
Nadia	I	31.2	34.1	12.5	39.8	13.3	42.0	13.3	30017
	II	27.9	36.5	13.3	41.5	14.9	42.6	13.0	26768
	III	32.8	35.6	13.8	41.7	16.1	42.2	12.4	31535
	IV	8.1	46.1	13.9	47.7	13.8	47.7	13.5	7786
24-Parg N	I	26.9	37.4	17.4	45.0	17.4	49.2	15.4	31891
	II	34.9	40.4	16.6	48.8	17.5	51.2	13.5	41492
	III	27.8	44.0	14.8	49.4	16.5	51.8	15.1	33050
	IV	10.4	49.2	16.6	54.1	16.0	57.9	12.5	12299
24-Parg S	I	22.2	39.1	13.6	43.7	16.3	45.5	15.4	27636
	II	47.1	42.9	15.6	47.2	16.0	48.2	12.9	58682
	III	23.5	42.0	20.4	50.3	16.3	49.8	15.1	29307
	IV	7.2	51.1	13.9	49.7	16.0	50.8	13.7	8951

* I= Illiterate, II= Literate, III= Upto Class X, IV= Shool Final and above

Table 5.13 continued

Table 5.13

District	Education	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Calcutta	I	20.5	35.2	14.9	46.5	17.3	49.9	11.4	10154
	II	26.5	32.6	15.7	40.0	12.7	48.7	11.6	13119
	III	34.8	39.7	14.2	45.6	16.0	51.0	12.6	17243
	IV	18.2	51.0	19.2	55.3	17.9	60.3	16.1	9043
Howrah	I	19.2	32.5	16.2	39.5	17.5	40.5	14.1	9018
	II	40.0	37.6	15.9	44.1	17.4	43.9	14.7	18808
	III	25.4	37.6	18.4	45.1	17.6	45.6	17.0	11935
	IV	15.5	53.6	17.1	63.8	10.3	53.0	18.8	7289
Hooghli	I	28.2	31.6	21.5	36.3	24.1	44.8	16.2	27786
	II	35.9	43.0	17.2	49.4	18.1	49.0	19.1	35406
	III	25.7	40.3	17.2	46.9	18.1	50.8	16.2	25390
	IV	10.2	60.5	13.1	65.1	13.6	60.8	17.0	10106
Midnapur	I	15.9	34.0	13.7	39.9	16.2	39.4	13.7	22404
	II	48.5	36.0	14.3	40.4	15.0	40.9	14.2	68377
	III	30.6	40.1	14.0	45.5	15.8	45.4	14.4	43111
	IV	5.0	48.7	13.0	45.1	20.4	45.0	18.1	7082
Bankura	I	46.0	26.8	13.7	30.6	16.3	31.1	12.7	17543
	II	32.8	31.3	13.8	36.5	14.8	35.4	13.5	12514
	III	18.1	33.4	14.4	38.5	15.0	35.6	13.5	6892
	IV	3.1	43.1	16.1	50.5	14.1	43.3	12.6	1164
Purulia	I	64.9	33.3	13.2	29.4	19.0	34.2	17.1	22331
	II	26.2	32.8	16.3	44.9	15.2	38.8	14.9	9008
	III	7.0	35.1	14.8	45.5	13.3	44.9	11.5	2407
	IV	1.9	42.4	14.0	54.8	8.9	52.1	10.2	663
Burdwan	I	21.3	41.9	14.9	44.3	16.0	44.9	15.8	17799
	II	39.8	40.2	15.0	46.4	16.9	46.6	16.3	33290
	III	25.6	47.5	14.0	51.1	17.4	53.0	15.5	21419
	IV	13.3	53.2	13.7	57.2	16.6	59.3	15.6	11123
Birbhum	I	27.5	28.4	15.8	30.1	19.0	36.0	17.9	10192
	II	44.6	36.9	15.7	45.6	16.5	42.8	14.3	16508
	III	23.7	37.2	15.2	43.7	16.8	41.0	14.9	8754
	IV	4.2	44.5	19.2	50.4	17.5	42.5	15.4	1542
West Bengal	I	29.1	34.4	16.1	39.6	18.2	41.4	16.3	311466
	II	36.4	38.3	15.8	44.3	16.6	45.1	15.4	389206
	III	25.6	40.8	16.0	46.4	16.9	47.5	15.6	273586
	IV	8.8	51.6	15.8	54.6	16.6	55.1	16.6	94460

Table 5.14: Distribution of students by family size,subject-wise mean scores, standard deviations(SD) and estimated population for each district

District	Family * size	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Coochbehar	I	34.6	39.3	16.4	41.0	17.6	42.9	17.8	9225
	II	47.3	35.0	16.4	39.8	17.0	40.3	18.3	12601
	III	18.1	28.6	15.3	35.8	15.3	38.8	15.8	4827
Jalpaiguri	I	37.2	43.0	17.4	46.0	16.5	51.6	18.2	15983
	II	43.9	36.8	17.5	40.1	17.2	45.5	15.8	18876
	III	18.9	38.1	16.8	41.1	17.9	45.0	16.9	8122
Siliguri	I	26.0	34.8	14.0	36.7	15.5	37.6	13.7	2055
	II	46.9	30.2	16.0	40.5	15.8	39.6	13.5	3708
	III	27.1	25.6	15.0	32.6	16.9	35.0	18.8	2143
W.Dinajpur	I	31.2	37.6	14.9	41.4	17.0	41.3	13.7	11282
	II	51.3	36.9	16.1	40.6	18.0	37.8	18.3	18578
	III	17.5	36.6	15.0	42.9	15.7	43.4	12.9	6331
Malda	I	27.6	36.6	15.0	45.1	15.8	39.9	19.4	7213
	II	49.5	35.5	12.3	44.8	15.3	38.2	19.0	12916
	III	22.9	34.8	16.0	47.2	12.1	41.1	17.1	5974
Murshidabad	I	23.8	41.4	17.7	48.2	17.3	47.6	15.9	13414
	II	47.0	38.5	16.3	45.0	16.7	47.0	16.0	26469
	III	29.2	38.4	17.2	46.8	17.2	46.7	15.0	16442
Nadia	I	37.2	37.6	13.9	42.4	14.3	43.7	12.1	35870
	II	47.9	34.7	13.5	40.7	15.8	42.3	13.8	46193
	III	14.9	36.5	13.8	39.0	14.5	42.1	12.7	14352
24-Parg N	I	44.9	44.2	15.2	49.7	16.3	52.5	14.7	53826
	II	40.1	39.7	17.0	48.2	17.4	50.7	14.8	48046
	III	15.0	37.8	17.6	45.7	18.5	48.7	15.0	17999
24-Parg S	I	32.6	42.1	16.1	46.6	16.1	47.8	13.8	40849
	II	42.7	42.6	16.0	47.2	16.4	45.8	16.5	53474
	III	24.7	41.0	18.1	47.1	16.9	48.0	13.8	30951

* I= Upto 5, II= 6 to 8, III= 9 and above

Table 5.14 continued

Table 5.14

District	Family size	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Calcutta	I	52.2	40.9	17.7	47.9	17.9	53.0	15.3	26111
	II	33.5	34.5	16.7	42.4	15.7	49.8	12.2	16721
	III	14.3	40.8	13.8	47.0	13.2	51.7	11.0	7149
Howrah	I	34.7	44.2	17.6	50.7	16.8	49.2	16.4	16429
	II	42.9	36.0	17.6	44.4	18.0	44.1	15.2	20315
	III	22.4	35.6	17.9	42.8	19.3	41.0	16.4	10590
Hooghli	I	40.3	41.5	19.3	47.4	18.8	48.6	20.7	40166
	II	42.8	41.8	19.1	48.4	19.8	50.2	16.1	42639
	III	16.9	42.3	17.6	45.5	21.4	52.0	18.0	16853
Midnapur	I	30.3	35.5	15.0	40.4	15.5	40.8	15.3	44243
	II	45.4	38.3	14.6	42.4	16.0	42.3	14.3	66285
	III	24.2	37.6	14.1	42.6	16.8	42.9	14.6	35342
Bankura	I	37.8	30.8	14.0	34.6	16.3	33.9	13.7	14213
	II	40.3	27.9	14.4	32.9	16.5	32.9	13.1	15126
	III	21.9	30.6	14.7	36.4	15.2	33.8	14.2	8215
Purulia	I	23.5	33.1	15.3	36.5	17.7	41.7	14.4	8179
	II	56.4	32.6	14.0	34.8	20.2	34.4	16.7	19642
	III	20.2	33.0	13.5	38.2	14.9	39.3	13.4	7021
Burdwan	I	42.9	44.8	16.2	49.3	18.8	51.2	17.3	36469
	II	35.5	41.8	14.1	46.0	16.1	46.3	16.6	30132
	III	21.6	43.0	17.1	49.0	15.8	46.4	18.8	18383
Birbhum	I	37.6	34.7	16.3	41.2	18.6	41.6	14.7	13408
	II	43.8	34.8	15.9	41.0	17.9	40.1	15.8	15593
	III	18.6	33.4	17.7	38.7	19.1	38.6	17.7	6639
West Bengal	I	36.2	40.2	16.7	45.4	17.4	46.9	16.6	388941
	II	43.5	37.9	16.2	43.5	17.5	44.2	16.3	467323
	III	20.2	38.0	16.7	43.8	17.4	44.8	16.0	217342

Table 5.15: Distribution of students by per capita expenditure,subject-wise mean scores,standard deviations(SD) and estimated population for each district

District	Expenditure *	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Coochbehar	I	72.9	31.6	15.4	36.9	16.5	39.3	16.9	19429
	II	27.1	45.5	15.6	46.3	16.6	45.4	19.3	7225
Jalpaiguri	I	67.9	35.9	16.3	39.6	16.1	44.0	15.6	29198
	II	32.1	46.8	17.8	49.0	17.6	56.2	16.7	13780
Siliguri	I	80.7	27.9	15.4	36.5	16.9	36.6	15.8	6317
	II	19.3	36.7	15.6	38.0	13.7	41.4	14.5	1511
W.Dinajpur	I	82.4	35.3	15.0	41.0	16.8	39.9	15.9	29734
	II	17.6	46.1	14.7	41.9	20.4	39.3	18.4	6371
Malda	I	72.7	35.4	13.8	45.5	14.7	38.8	19.1	18714
	II	27.3	36.2	14.4	45.4	15.1	40.4	18.0	7017
Murshidabad	I	73.2	37.7	17.1	45.6	17.1	46.4	15.9	41600
	II	26.8	42.8	16.2	48.2	16.8	49.1	15.2	15242
Nadia	I	67.1	34.7	13.3	39.5	14.9	41.6	12.5	64718
	II	32.9	38.7	14.3	44.7	14.9	45.1	13.7	31696
24-Parg N	I	60.6	39.3	17.1	48.2	17.4	51.0	14.5	72287
	II	39.4	44.9	14.9	49.0	16.5	51.6	15.3	47016
24-Parg S	I	64.7	42.2	16.1	46.0	17.2	46.7	14.8	80998
	II	35.3	41.9	16.9	49.2	14.4	47.7	15.5	44207
Calcutta	I	48.3	36.3	16.3	44.3	15.5	49.7	10.3	23401
	II	51.7	41.6	17.7	47.4	18.2	54.5	16.0	25055
Howrah	I	58.0	37.1	16.6	44.1	16.4	44.3	13.7	27446
	II	42.0	40.9	19.8	49.4	20.0	46.6	19.0	19888
Hooghli	I	57.2	37.5	17.9	43.6	19.5	47.2	17.8	56512
	II	42.8	49.6	18.0	53.7	18.3	52.8	19.9	42245
Midnapur	I	72.8	36.5	14.9	41.7	16.3	41.5	14.7	105629
	II	27.2	39.5	13.5	42.4	15.2	43.7	14.5	39522
Bankura	I	76.5	28.7	13.9	32.7	15.6	32.5	13.4	29536
	II	23.5	32.3	15.5	39.2	17.3	36.6	13.8	9084
Purulia	I	84.2	33.9	14.8	37.8	18.4	36.8	16.8	26657
	II	15.8	31.2	14.9	44.1	13.2	47.4	7.8	5013
Burdwan	I	57.7	41.5	15.9	46.3	16.3	44.9	17.4	48682
	II	42.3	45.8	15.8	50.3	18.3	52.4	17.0	35681
Birbhum	I	71.7	33.4	16.4	39.2	18.7	39.4	16.2	26060
	II	28.3	37.1	15.8	44.3	17.5	43.3	14.4	10262
West Bengal	I	66.2	36.9	16.1	42.7	17.3	43.7	15.9	706926
	II	33.8	42.7	16.7	47.7	17.2	48.6	16.9	360825

* I= Below poverty line, II= Above poverty line

Table 5.16: Distribution of students by school attendance, subject-wise mean scores, standard deviations (SD) and estimated population for each district

District	Attendance *	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Coochbehar	I	74.5	37.8	17.0	41.8	17.0	42.5	18.5	19819
	II	25.5	28.0	13.0	33.0	15.3	35.9	14.8	6786
Jalpaiguri	I	87.9	40.7	17.2	42.7	17.7	48.8	17.5	37768
	II	12.1	29.2	17.0	41.2	13.7	39.8	13.0	5214
Siliguri	I	73.0	34.6	15.0	41.1	16.5	42.6	13.5	5779
	II	27.0	18.5	10.4	27.7	10.7	25.1	12.3	2139
W.Dinajpur	I	76.4	39.1	15.7	42.7	17.7	40.6	17.3	27603
	II	23.6	30.3	13.0	36.1	15.4	37.2	12.2	8527
Malda	I	84.6	36.1	14.2	46.1	14.6	40.0	19.1	22001
	II	15.4	33.0	12.5	42.3	14.9	36.0	16.5	3991
Murshidabad	I	82.7	40.8	16.7	47.9	16.6	48.8	15.1	46536
	II	17.3	32.0	15.9	39.4	16.9	38.6	15.6	9736
Nadia	I	84.4	37.4	13.7	42.0	15.1	43.2	13.1	81346
	II	15.6	28.8	12.1	36.1	14.1	40.6	12.8	15069
24-Parg N	I	85.6	42.9	15.7	50.0	16.4	52.1	14.9	102642
	II	14.4	32.8	18.6	39.1	18.5	45.4	13.1	17293
24-Parg S	I	93.1	42.4	16.4	47.8	16.0	47.6	14.6	114432
	II	6.9	34.9	17.2	38.2	18.5	37.3	18.7	8491
Calcutta	I	95.8	39.3	17.0	46.8	16.3	52.0	13.8	47602
	II	4.2	31.2	18.2	28.2	20.6	44.4	13.7	2093
Howrah	I	85.6	40.2	18.1	48.1	17.8	46.4	16.3	40366
	II	14.4	31.0	16.0	35.8	17.1	37.9	13.8	6803
Hooghli	I	90.7	42.4	18.8	48.3	20.0	50.9	17.9	89889
	II	9.3	34.6	19.0	39.1	17.0	40.1	20.0	9166
Midnapur	I	75.5	39.0	14.4	43.2	16.2	42.6	15.2	110369
	II	24.5	31.8	14.1	37.7	14.6	39.9	13.2	35790
Bankura	I	79.4	31.0	14.1	35.2	16.3	34.5	14.0	29816
	II	20.6	23.3	13.8	30.3	15.6	28.7	11.6	7738
Purulia	I	87.4	33.8	14.5	36.9	19.0	37.4	16.4	30446
	II	12.6	25.7	9.2	28.6	13.7	33.6	11.6	4395
Burdwan	I	83.9	44.4	15.6	49.2	17.2	49.1	17.7	71264
	II	16.1	37.2	15.2	42.1	16.6	44.3	16.5	13645
Birbhum	I	77.0	36.5	15.9	42.8	16.8	41.9	14.6	27430
	II	23.0	28.1	16.2	33.4	21.6	35.7	18.5	8211
West Bengal	I	84.6	40.1	16.3	45.6	17.3	46.3	16.4	905116
	II	15.4	31.2	15.6	37.1	16.7	39.2	15.2	165093

* I= Regular, II= Not regular

Table 5.17: Distribution of students by reasons for irregular attendance, subject-wise mean scores, standard deviations(SD) and estimated population for each district

District	Reasons *	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Coochbehar	I	18.6	41.4	20.5	38.2	11.0	45.7	21.3	1219
	II	33.1	29.4	12.5	37.6	16.8	41.7	13.8	2164
	III	27.3	31.2	13.0	36.5	14.9	38.7	13.5	1788
	IV	20.9	27.1	15.2	32.7	17.9	29.5	13.8	1367
Jalpaiguri	I	29.8	55.2	11.6	57.3	4.8	63.3	9.8	2028
	II	46.0	32.5	17.3	41.5	11.9	45.3	12.9	3128
	III	10.5	33.6	12.1	36.5	13.8	41.5	8.8	715
	IV	13.7	52.0	11.6	51.5	10.9	64.2	13.7	932
Siliguri	I	3.7	37.3	4.7	31.8	3.7	36.8	9.6	49
	II	50.6	18.0	11.0	28.7	11.2	28.7	11.7	685
	III	35.9	20.6	11.6	28.7	13.9	25.4	17.4	487
	IV	9.8	15.0	5.3	20.5	6.5	18.6	8.9	133
W.Dinajpur	I	10.9	44.7	16.5	40.4	10.0	47.9	9.8	810
	II	65.4	27.5	15.2	32.6	15.3	32.8	13.5	4878
	III	20.1	38.7	11.6	38.7	16.2	40.3	13.0	1500
	IV	3.7	31.7	9.0	30.4	13.2	43.5	8.2	274
Malda	I	1.5	31.6	10.3	39.7	11.9	37.7	8.8	75
	II	74.3	34.6	8.8	44.8	9.0	39.4	20.0	3736
	III	4.6	30.0	13.1	41.5	12.8	39.8	9.2	232
	IV	19.6	47.9	13.2	62.2	10.4	46.4	20.1	983
Murshidabad	I	21.1	31.8	14.3	49.2	16.2	47.8	12.9	2326
	II	48.5	31.2	16.9	37.1	14.5	40.0	15.2	5348
	III	13.0	41.0	13.6	48.5	12.7	31.2	21.7	1437
	IV	17.3	39.3	10.3	47.6	11.7	45.6	7.0	1907
Nadia	I	6.8	43.2	11.2	46.5	11.5	46.3	10.5	879
	II	31.3	31.2	13.5	36.5	14.5	40.3	9.9	4057
	III	21.8	19.9	14.8	24.0	18.5	28.9	22.9	2830
	IV	40.1	24.4	10.7	27.6	15.5	35.6	8.9	5194
24-Parg N	I	14.8	40.4	12.7	44.8	15.6	48.9	12.7	2344
	II	31.5	35.8	18.6	39.3	20.6	46.6	15.3	4989
	III	39.8	27.8	13.6	30.4	11.4	41.4	8.6	6292
	IV	13.9	26.1	17.0	48.5	16.3	46.6	12.0	2198
24-Parg S	I	36.7	35.0	14.2	34.3	6.5	42.8	7.2	3791
	II	38.1	29.0	13.2	27.4	13.4	25.4	19.0	3943
	III	19.5	40.2	17.6	47.7	22.7	32.0	21.8	2012
	IV	5.7	34.9	7.9	47.7	14.7	48.5	5.2	592

* I= Illness, II= Involvement in domestic work, III= Economic reasons, IV= Other reasons

Table 5.17 continued

Table 5.17

District	Reasons	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Calcutta	I	36.5	32.7	20.4	41.8	16.0	42.7	29.3	641
	II	12.9	21.1	16.7	35.1	12.9	43.6	9.3	226
	III	7.3	27.2	11.5	32.4	10.1	51.3	4.3	129
	IV	43.3	31.2	8.9	27.1	9.4	49.0	6.5	760
Howrah	I	10.4	42.4	19.0	49.4	17.3	26.6	22.1	842
	II	68.9	34.8	19.6	38.1	19.5	41.4	16.5	5575
	III	7.8	32.1	9.1	45.0	15.0	43.3	10.9	629
	IV	13.0	34.1	14.3	42.4	14.5	41.9	11.4	1049
Hooghli	I	21.2	46.1	15.9	46.1	15.7	48.2	12.6	1894
	II	57.4	36.9	17.2	36.3	24.9	44.6	16.9	5119
	III	10.2	62.4	23.3	50.3	11.8	49.5	18.1	907
	IV	11.2	20.1	13.3	29.3	13.0	24.7	14.1	1000
Midnapur	I	15.1	39.2	14.2	45.6	14.8	42.8	12.2	4450
	II	50.7	36.1	13.2	37.4	15.9	39.8	13.3	14944
	III	16.1	26.4	11.6	37.0	12.7	32.6	12.8	4743
	IV	18.2	32.6	16.4	38.4	12.7	44.3	9.7	5355
Bankura	I	6.0	18.2	7.2	28.8	6.5	25.3	5.7	452
	II	74.4	24.1	14.1	30.2	15.3	29.6	13.0	5584
	III	13.2	20.2	9.6	34.4	13.4	30.8	11.3	991
	IV	6.4	26.8	16.6	21.4	16.4	30.5	9.6	477
Purulia	I	6.1	33.3	5.6	49.4	4.0	36.5	4.5	192
	II	42.2	32.0	18.6	35.7	15.9	42.1	15.3	1342
	III	31.8	32.1	13.0	28.3	15.3	38.6	13.5	1010
	IV	20.0	25.6	2.1	47.0	3.9	30.1	1.2	636
Burdwan	I	3.7	42.0	19.9	52.9	9.4	46.4	11.8	498
	II	68.7	37.8	16.4	40.9	15.8	45.3	16.4	9166
	III	7.7	36.1	10.0	36.9	21.3	52.2	12.3	1022
	IV	19.9	29.3	16.3	29.6	21.3	33.7	18.0	2652
Birbhum	I	15.3	27.4	5.5	39.0	8.0	38.4	4.1	1229
	II	69.8	28.0	16.2	33.8	22.0	35.1	18.7	5606
	III	8.2	28.2	12.9	34.0	13.6	39.9	19.9	656
	IV	6.7	34.3	15.3	42.4	18.8	37.0	14.3	535
West Bengal	I	16.7	39.3	16.3	43.5	14.2	45.8	15.2	27287
	II	48.2	32.9	16.2	36.5	17.6	39.5	16.7	78719
	III	18.0	31.3	17.0	35.5	17.5	35.4	17.7	29380
	IV	17.2	30.2	15.1	36.8	17.6	40.5	14.2	28089

Table 5.18: Distribution of students by school attendance during last 30 working days, subject-wise mean scores, standard deviations(SD) and estimated population for each district

District	Days *	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Coochbehar	I	6.1	27.4	12.6	28.0	12.1	32.2	15.2	1624
	II	48.6	33.0	15.4	37.1	16.4	39.8	17.0	12950
	III	45.3	39.0	17.8	43.6	17.1	43.1	18.8	12079
Jalpaiguri	I	2.0	25.9	12.8	29.0	14.0	34.4	6.6	891
	II	24.9	34.8	18.1	39.5	15.6	39.8	18.3	11032
	III	73.1	41.3	17.0	43.9	17.5	51.0	15.8	32334
Siliguri	I	1.9	26.9	20.7	33.8	13.0	41.2	9.9	136
	II	55.1	33.2	15.1	40.9	16.1	40.4	14.7	3931
	III	43.0	31.5	14.8	37.4	17.3	41.9	13.8	3069
W.Dinajpur	I	3.8	25.8	17.1	31.9	18.0	39.6	12.5	1378
	II	42.8	36.5	15.1	41.2	16.2	40.3	14.4	15481
	III	53.4	38.8	15.7	41.3	18.7	39.0	18.7	19289
Malda	I	1.7	24.8	12.6	34.3	15.1	10.9	19.1	422
	II	33.8	35.8	12.9	44.5	15.6	31.0	19.8	8339
	III	64.5	35.5	14.4	46.1	13.8	44.0	16.2	15931
Murshidabad	I	5.6	30.5	13.1	39.0	17.5	40.7	13.7	3138
	II	55.8	40.5	16.6	46.4	16.8	46.9	15.7	31409
	III	38.7	38.6	17.5	47.3	16.8	48.3	15.6	21778
Nadia	I	6.3	25.0	10.8	35.4	13.0	38.6	14.0	6074
	II	56.6	34.2	12.9	40.5	14.7	43.0	12.1	54576
	III	37.1	40.9	14.0	43.8	16.0	44.1	15.0	35764
24-Parg N	I	1.6	26.8	17.3	33.3	12.2	39.0	14.9	1894
	II	31.3	36.8	15.9	43.7	16.5	47.5	13.6	37423
	III	67.1	43.8	16.2	50.9	16.9	53.1	14.9	80301
24-Parg S	I	1.5	37.1	12.7	30.4	9.5	40.1	15.3	1811
	II	17.7	35.8	20.4	44.2	15.8	45.7	14.0	21698
	III	80.8	43.7	15.3	48.2	16.3	47.2	15.5	99100

* I= Upto 10 days, II= 11 to 20 days, III= 21 to 30 days

Table 5.18 continued

Table 5.18

District	Days	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Calcutta	I	4.3	37.3	16.1	48.2	15.1	51.9	11.8	2109
	II	20.9	36.1	16.8	43.5	17.8	47.4	13.1	10315
	III	74.9	38.9	18.0	46.6	16.9	52.9	13.4	37015
Howrah	I	1.7	22.9	17.5	31.4	14.8	36.1	15.5	784
	II	30.5	32.8	17.5	40.6	19.0	41.1	14.5	14063
	III	67.8	41.7	17.8	48.8	17.4	47.4	17.0	31306
Hooghli	I	2.6	29.9	11.4	43.3	17.5	36.4	15.9	2635
	II	36.4	39.9	19.7	43.7	21.7	44.5	15.0	36165
	III	61.0	43.3	18.3	49.7	18.8	53.2	19.7	60677
Midnapur	I	0.6	35.5	10.1	31.8	17.5	37.4	15.6	907
	II	29.4	33.1	12.9	37.6	14.7	39.0	13.0	41938
	III	70.0	38.9	15.0	43.8	15.9	42.8	15.6	99857
Bankura	I	3.5	17.8	12.4	19.6	14.4	26.2	11.4	1301
	II	41.5	25.1	12.9	28.3	15.6	28.4	13.1	15603
	III	55.0	33.7	14.1	39.7	14.5	38.1	12.3	20650
Purulia	I	1.7	30.4	12.6	34.3	22.4	35.9	19.2	605
	II	30.9	27.6	12.7	30.6	20.4	29.8	18.5	10715
	III	67.4	35.2	14.2	37.4	17.6	39.7	13.7	23394
Burdwan	I	1.9	39.7	16.8	40.9	17.0	42.1	19.8	1577
	II	33.6	39.1	14.5	46.2	16.1	44.1	17.7	28557
	III	64.5	45.7	16.0	49.3	17.7	50.8	17.0	54789
Birbhum	I	8.3	21.6	13.9	25.0	17.8	24.6	16.2	2963
	II	54.9	35.2	16.4	41.2	18.2	41.7	15.3	19687
	III	36.8	37.4	15.3	44.5	16.5	42.8	14.2	13208
West Bengal	I	2.8	28.4	14.7	34.5	16.8	37.0	16.4	30256
	II	35.1	35.5	16.1	41.3	17.4	42.1	15.6	373890
	III	62.0	41.1	16.4	46.4	17.2	47.4	16.7	660549

Table 5.19: Distribution of students by study time at home, subject-wise mean scores, standard deviations(SD) and estimated population for each district

District	Study time *	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Coochbehar	I	13.2	26.3	11.6	27.4	13.4	30.8	11.7	3519
	II	25.6	32.7	15.3	37.9	16.1	41.6	17.1	6821
	III	27.7	34.7	16.4	39.7	14.9	43.2	16.0	7377
	IV	23.8	36.4	16.4	43.9	16.6	40.2	19.2	6343
	V	9.7	52.0	16.6	50.1	18.8	48.4	21.6	2592
Jalpaiguri	I	5.1	20.4	16.9	40.5	13.9	38.1	12.9	2243
	II	15.2	34.9	16.6	37.6	15.3	42.7	14.0	6648
	III	21.0	39.5	17.0	42.2	17.7	46.9	16.6	9203
	IV	31.3	39.0	16.4	41.2	18.4	46.3	17.6	13720
	V	27.3	46.0	16.3	47.9	15.8	55.0	16.8	11954
Siliguri	I	17.9	16.4	8.1	28.6	11.6	23.7	9.8	1404
	II	21.9	26.0	13.5	29.8	17.4	36.2	17.0	1715
	III	18.2	31.9	13.4	41.3	13.5	41.9	8.9	1430
	IV	17.1	32.8	15.6	37.3	14.1	38.7	11.7	1340
	V	25.0	41.1	14.0	48.3	14.6	46.7	14.5	1961
W.Dinajpur	I	16.0	31.3	16.6	31.7	17.4	31.4	16.9	5646
	II	25.5	38.3	15.2	41.7	17.6	42.8	15.2	8964
	III	16.8	42.4	15.3	47.5	16.7	48.4	15.5	5917
	IV	17.7	37.5	15.1	42.4	15.3	42.3	14.7	6222
	V	24.0	38.3	16.2	41.1	18.9	34.1	18.1	8454
Malda	I	4.5	32.6	9.6	44.7	9.0	49.2	9.3	1161
	II	29.6	30.8	14.3	42.9	13.5	35.6	21.0	7568
	III	12.6	31.8	16.4	43.6	14.9	35.9	19.0	3220
	IV	23.1	38.2	12.6	45.1	14.4	39.8	15.7	5912
	V	30.2	41.1	11.6	49.7	15.6	42.7	18.8	7721
Murshidabad	I	6.6	28.1	13.3	37.2	18.6	41.4	14.1	3715
	II	29.4	31.9	16.1	39.7	16.0	41.7	16.6	16514
	III	19.2	39.9	16.5	49.7	15.4	47.8	13.9	10794
	IV	30.4	44.7	16.5	50.5	16.3	49.1	14.7	17095
	V	14.4	46.4	13.8	52.5	15.0	54.6	13.7	8093

* I= One hour or less, II= Two hrs, III= Three hrs, IV= Four hrs, V= Five hrs or more.

Table 5.19 continued

Table 5.19

District	Study time	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Nadia	I	9.9	34.5	14.5	37.9	12.9	42.9	11.4	9529
	II	29.0	32.9	11.9	38.3	13.4	41.5	12.1	28008
	III	17.6	35.5	13.0	40.0	15.1	39.8	13.9	16934
	IV	25.2	38.8	13.8	45.0	15.6	45.4	13.4	24313
	V	18.3	40.6	13.7	43.4	15.2	43.8	12.7	17630
24-Parg N	I	1.3	25.4	20.7	35.5	16.8	41.2	19.8	1603
	II	14.0	32.0	13.7	38.3	17.9	44.2	13.0	16847
	III	18.4	39.4	15.4	45.9	16.7	50.6	14.2	22155
	IV	30.3	43.8	14.2	49.5	16.3	52.3	13.9	36504
	V	36.0	45.0	17.6	53.8	15.2	54.1	15.2	43384
24-Parg S	I	3.8	40.8	18.4	40.4	15.4	44.9	13.9	4725
	II	10.5	38.8	16.7	40.7	18.3	38.0	16.1	12970
	III	17.0	38.5	15.5	42.9	16.1	46.2	12.3	20934
	IV	30.3	40.4	17.0	48.0	16.9	47.1	16.0	37279
	V	38.4	45.7	15.6	50.6	14.1	49.9	13.9	47316
Calcutta	I	3.9	23.1	16.7	37.9	17.4	48.6	14.7	1966
	II	20.0	35.2	17.0	42.6	17.3	50.9	14.1	9987
	III	20.4	37.7	16.9	47.0	16.7	50.8	12.5	10181
	IV	25.5	40.0	16.4	45.8	16.9	50.9	15.1	12759
	V	30.2	43.1	16.1	48.8	15.3	53.9	12.7	15087
Howrah	I	5.6	31.9	18.3	34.2	17.4	38.3	16.2	2652
	II	15.4	31.1	15.8	39.8	16.2	39.6	13.2	7305
	III	16.0	36.6	17.9	43.4	18.6	45.1	13.7	7555
	IV	35.5	39.5	17.0	45.2	17.7	43.2	15.8	16774
	V	27.5	45.2	18.3	55.4	15.7	52.5	17.0	13014
Hooghli	I	8.9	43.7	19.3	43.9	23.3	41.1	18.3	8825
	II	23.1	39.0	18.7	44.9	18.3	44.8	17.7	23012
	III	21.7	40.7	19.2	53.6	19.7	52.3	13.2	21615
	IV	26.7	43.3	17.8	45.5	18.0	54.1	19.6	26513
	V	19.6	43.5	19.2	48.4	21.7	50.8	19.9	19510

Table 5.19 continued

Table 5.19

District	Study time	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Midnapur	I	6.0	31.4	15.2	36.6	14.0	36.2	10.1	8707
	II	21.8	32.9	15.2	38.3	15.2	39.2	13.0	31650
	III	18.7	36.7	14.9	42.5	16.6	41.0	14.3	27110
	IV	26.1	39.1	13.7	42.7	15.4	43.0	16.8	37909
	V	27.3	40.9	13.3	45.0	16.1	45.4	14.0	39629
Bankura	I	9.8	24.1	11.7	27.7	14.2	29.5	9.5	3671
	II	32.2	23.8	14.4	28.6	15.1	28.3	13.3	12073
	III	21.8	31.3	13.8	34.9	17.8	34.3	14.0	8161
	IV	21.5	34.1	12.6	39.5	14.7	38.5	11.1	8072
	V	14.8	36.6	12.4	41.4	13.8	37.5	15.3	5539
Purulia	I	4.6	24.2	13.0	32.3	10.0	40.3	9.7	1591
	II	33.5	30.1	12.6	25.3	19.6	30.4	17.3	11657
	III	21.3	32.8	15.4	39.6	15.8	39.3	14.9	7399
	IV	27.9	34.3	14.4	40.0	17.2	38.5	14.9	9686
	V	12.7	41.2	10.8	48.6	11.9	45.8	10.5	4428
Burdwan	I	4.0	32.0	14.9	37.4	18.0	36.2	13.4	3428
	II	15.5	41.6	16.2	47.5	15.8	45.3	17.9	13274
	III	26.6	40.6	15.4	45.2	16.9	45.0	18.3	22693
	IV	35.1	44.1	15.7	49.7	16.0	50.1	15.0	29969
	V	18.8	49.9	14.1	52.6	19.9	55.3	18.8	16071
Birbhum	I	18.6	29.5	18.4	34.2	23.2	37.4	18.9	6865
	II	31.9	31.2	16.1	38.4	17.4	39.0	15.6	11734
	III	18.5	38.9	13.9	45.1	16.8	44.2	15.7	6802
	IV	20.5	37.5	15.2	44.1	16.4	42.0	13.1	7571
	V	10.5	42.9	13.3	44.8	13.3	42.3	11.8	3868
West Bengal	I	6.6	31.9	17.3	36.4	17.8	38.3	15.3	71257
	II	21.2	33.7	15.9	39.0	17.2	40.6	16.0	226755
	III	19.5	37.9	16.1	44.5	17.4	45.3	15.4	209488
	IV	27.8	40.6	15.8	45.9	16.8	46.9	16.3	297989
	V	24.8	43.8	15.9	49.2	16.6	49.4	16.3	266260

Table 5.20: Distribution of students by educational assistance at home, subject-wise mean scores, standard deviations (SD) and estimated population for each district

District	Relation *	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Coochbehar	I	14.5	45.5	15.7	46.0	16.6	44.4	20.2	3866
	II	29.7	34.9	17.9	39.3	17.2	39.5	19.4	7910
	III	13.4	34.8	15.2	38.8	16.6	41.7	17.8	3558
	IV	42.5	32.0	15.1	37.5	16.4	39.6	15.6	11317
Jalpaiguri	I	22.0	47.5	16.8	49.6	18.2	56.9	15.5	9423
	II	29.2	42.3	17.4	43.6	17.0	51.6	16.7	12537
	III	14.5	38.1	15.4	38.6	16.8	46.3	13.7	6227
	IV	34.3	33.3	16.6	40.7	15.0	40.2	16.3	14688
Siliguri	I	10.8	36.8	13.8	40.1	12.6	41.3	11.9	809
	II	23.3	37.4	15.0	43.6	15.9	44.5	16.8	1749
	III	17.7	34.4	12.8	44.6	16.4	47.1	12.0	1325
	IV	48.2	21.9	13.1	31.4	15.5	29.7	12.4	3615
W.Dinajpur	I	6.0	42.6	13.6	40.3	17.9	38.8	18.6	2160
	II	35.6	39.5	17.1	42.2	20.7	39.4	17.9	12714
	III	15.4	38.0	18.9	41.6	16.9	40.6	19.0	5494
	IV	43.0	34.6	12.8	40.5	15.4	39.9	12.7	15391
Malda	I	9.1	38.5	13.3	45.0	15.2	48.6	13.5	2268
	II	26.6	35.9	14.7	44.2	14.2	41.8	14.6	6606
	III	10.7	36.1	12.8	48.0	12.9	41.9	12.8	2655
	IV	53.7	36.1	13.7	46.0	15.4	36.9	21.8	13348
Murshidabad	I	12.9	42.0	17.6	45.9	17.9	50.7	16.4	7467
	II	36.7	41.9	17.0	47.8	17.7	50.0	15.9	21215
	III	13.7	37.1	17.1	45.3	16.9	46.3	15.4	7938
	IV	36.7	39.1	16.1	45.6	16.8	45.3	14.9	21237
Nadia	I	22.1	37.1	12.4	39.2	15.9	43.8	11.3	21512
	II	23.1	39.0	13.5	45.4	13.6	44.2	14.4	22477
	III	21.6	33.1	13.6	39.7	16.7	41.8	13.1	20972
	IV	33.2	34.7	13.6	40.2	13.9	41.9	13.2	32298
24-Parg N	I	20.6	47.7	14.9	51.9	16.3	55.7	14.4	24325
	II	33.0	40.9	16.3	49.4	15.6	50.7	14.5	39067
	III	16.8	40.4	17.9	49.9	17.0	51.3	12.0	19864
	IV	29.6	39.3	16.2	46.3	18.1	48.9	16.5	35033
24-Parg S	I	23.8	44.0	15.3	48.3	17.2	49.7	14.1	30263
	II	23.2	43.9	16.6	50.1	15.1	48.3	15.3	29456
	III	24.3	39.4	16.9	43.8	16.9	46.2	14.7	30895
	IV	28.7	40.8	16.5	46.7	16.1	45.5	14.7	36443

* I= Mother, II= Father, III= Brother/Sister, IV= Others

Table 5.20 continued

Table 5.20

District	Relation	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Calcutta	I	31.4	43.8	17.2	49.8	16.6	54.8	16.6	15520
	II	26.1	41.2	17.0	45.8	16.9	52.5	12.5	12901
	III	16.3	32.0	15.3	35.8	15.9	49.6	11.1	8059
	IV	26.3	34.7	15.5	47.9	14.9	48.3	12.1	12988
Howrah	I	22.4	41.7	20.0	52.9	17.3	48.0	18.9	10603
	II	27.1	41.2	17.5	47.2	17.8	46.1	15.1	12833
	III	23.7	38.5	17.3	43.2	17.0	44.2	14.4	11214
	IV	26.8	35.3	17.3	43.5	18.5	44.5	16.1	12682
Hooghli	I	21.7	47.2	18.9	50.1	19.2	52.2	20.2	21452
	II	31.8	42.7	16.6	49.3	19.3	51.9	17.3	31404
	III	15.1	42.9	19.5	48.8	19.9	48.6	16.4	14906
	IV	31.5	39.3	19.5	44.8	20.6	46.8	17.9	31108
Midnapur	I	16.9	41.8	14.4	46.1	17.2	46.5	13.4	23776
	II	30.1	39.0	14.3	43.4	14.2	41.6	15.3	42432
	III	13.4	37.9	13.2	43.1	16.6	44.3	14.7	18861
	IV	39.7	34.8	14.9	39.6	15.7	40.6	13.7	55904
Bankura	I	11.1	31.7	14.6	37.6	16.9	33.7	12.9	4185
	II	38.9	33.0	13.0	38.2	14.9	37.4	13.1	14595
	III	13.0	27.8	15.7	31.3	16.3	34.8	14.0	4869
	IV	37.0	28.4	13.9	33.0	16.3	32.1	12.1	13904
Purulia	I	5.1	27.1	14.9	37.4	14.0	47.0	8.2	1754
	II	45.8	35.6	13.8	36.7	19.6	39.4	14.9	15693
	III	25.7	26.9	13.5	22.1	23.4	30.5	18.8	8789
	IV	23.4	37.3	13.8	42.0	15.0	40.4	12.8	8025
Burdwan	I	14.9	45.5	15.8	47.8	20.3	51.6	19.6	12601
	II	41.4	45.4	16.2	50.3	17.2	48.6	19.6	34923
	III	11.4	42.2	16.5	48.1	16.4	48.8	15.6	9652
	IV	32.2	42.3	14.8	47.1	16.3	46.6	14.7	27131
Birbhum	I	14.2	40.0	17.6	50.5	15.2	47.5	13.7	5212
	II	36.5	35.0	15.3	42.6	18.2	41.8	14.3	13360
	III	13.1	41.1	14.1	48.7	15.0	45.9	12.4	4777
	IV	36.2	30.4	15.1	32.2	17.9	36.1	16.6	13259
West Bengal	I	18.5	43.2	16.4	47.5	17.8	49.8	16.4	197205
	II	31.1	40.4	16.2	45.9	17.2	46.3	16.6	331883
	III	16.9	37.4	16.7	42.7	18.4	45.0	15.4	180062
	IV	33.6	36.5	16.0	42.5	17.1	42.9	15.8	358382

Table 5.21: Distribution of students by assistance from private tutor, subject-wise mean scores, standard deviations (SD) and estimated population for each district

District	Tutor *	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Coochbehar	I	44.4	36.5	16.5	40.2	16.6	43.3	16.2	11814
	II	55.6	34.2	16.8	39.0	17.4	38.7	18.9	14773
Jalpaiguri	I	58.0	40.7	17.1	44.1	16.3	50.2	16.4	24657
	II	42.0	37.4	17.8	40.7	18.1	44.2	17.5	17877
Siliguri	I	29.7	36.8	13.9	41.9	15.3	42.0	14.4	2319
	II	70.3	27.2	15.5	35.0	16.5	35.9	15.3	5501
W.Dinajpur	I	36.8	39.0	17.0	41.1	19.4	36.7	19.6	13297
	II	63.2	35.9	14.6	41.2	16.1	41.7	13.8	22789
Malda	I	38.0	39.2	12.3	46.0	16.0	42.1	17.9	9797
	II	62.0	33.2	14.5	44.8	13.8	37.4	18.9	16009
Murshidabad	I	28.5	41.2	17.4	48.0	17.8	48.5	14.4	15994
	II	71.5	38.2	16.8	46.1	16.6	46.7	16.3	40045
Nadia	I	57.7	37.0	13.3	41.7	15.3	42.7	13.2	55511
	II	42.3	34.6	14.2	40.3	14.9	42.9	12.7	40627
24 Parg N	I	56.7	43.9	15.5	50.0	16.2	51.6	14.8	67158
	II	43.3	38.1	17.4	46.5	18.2	50.4	14.9	51268
24 Parg S	I	56.5	41.6	16.5	47.4	14.8	47.3	14.4	69366
	II	43.5	42.2	16.7	46.6	18.2	46.2	15.9	53314
Calcutta	I	70.8	37.3	16.0	45.0	15.4	50.7	13.1	34961
	II	29.2	42.1	19.0	47.6	19.6	53.5	15.2	14438
Howrah	I	61.1	39.6	17.5	46.7	17.1	46.4	14.8	28209
	II	38.9	37.7	19.1	46.0	19.8	43.0	18.1	17991
Hooghli	I	49.9	40.8	18.7	47.8	19.0	49.9	18.9	49425
	II	50.1	42.9	19.0	46.7	21.1	49.5	18.1	49649
Midnapur	I	46.6	37.6	13.9	41.9	15.5	42.6	14.9	67543
	II	53.4	36.9	15.3	41.7	16.4	41.2	14.6	77464
Bankura	I	29.1	34.1	15.2	39.3	15.6	36.5	14.7	10789
	II	70.9	27.5	13.6	32.0	16.2	31.9	13.0	26299
Purulia	I	37.9	32.9	13.9	36.9	19.9	34.0	18.4	12759
	II	62.1	34.2	14.2	35.7	18.5	38.8	14.6	20889
Burdwan	I	54.3	42.8	15.6	48.1	16.5	48.8	16.4	45704
	II	45.7	43.9	16.0	48.0	18.2	48.0	18.9	38514
Birbhum	I	41.1	36.5	16.8	42.8	17.0	40.6	14.4	14598
	II	58.9	33.3	16.0	39.2	19.2	40.3	16.8	20929
West Bengal	I	50.3	39.7	16.1	45.3	16.7	46.3	16.1	533911
	II	49.7	37.7	16.9	43.2	18.2	44.1	16.7	528383

* I= Tutor, II= Without tutor

Table 5.22: Distribution of students by money spent on private tutors, subject-wise mean scores, standard deviations (SD) and estimated population for each district

District	Amount *	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Coochbehar	I	18.6	28.4	11.1	30.6	12.8	30.2	19.1	2486
	II	53.3	35.2	16.2	37.7	18.2	43.4	14.3	7137
	III	17.9	42.6	11.4	46.3	13.6	46.9	14.6	2388
	IV	3.8	46.5	12.5	44.8	9.7	56.0	11.0	512
	V	5.2	65.3	7.4	59.6	7.4	61.3	9.8	690
	VI	1.2	52.3	11.6	47.6	12.0	59.8	11.7	163
Jalpaiguri	I	6.4	32.1	11.7	38.2	13.9	45.7	10.8	1668
	II	42.2	37.1	16.1	40.0	15.0	45.8	13.7	10919
	III	43.2	41.3	17.4	45.9	16.5	53.0	15.1	11164
	IV	4.4	53.2	12.5	57.8	13.4	65.4	10.4	1133
	V	2.1	65.4	4.6	65.3	6.7	71.5	4.6	550
	VI	1.7	35.4	31.2	40.6	13.9	58.2	20.2	432
Siliguri	I	22.3	17.2	6.1	22.3	9.8	22.1	15.1	637
	II	38.6	39.9	13.6	51.8	14.4	42.3	16.5	1101
	III	30.3	35.1	12.7	37.5	12.5	41.5	13.5	866
	IV	6.6	45.1	8.0	36.3	10.7	49.1	4.7	188
	V	2.2	47.0	16.1	49.4	16.7	45.8	14.5	62
	VI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
W.Dinajpur	I	16.1	47.0	15.6	48.3	17.2	46.0	15.9	2058
	II	46.4	38.4	14.4	40.9	15.1	35.9	18.1	5927
	III	24.7	31.6	20.1	35.4	21.9	34.5	24.6	3156
	IV	2.2	47.7	10.8	58.3	17.6	57.6	9.4	280
	V	4.9	58.5	6.3	61.0	2.1	30.9	20.2	626
	VI	5.8	35.8	15.1	55.0	6.2	37.4	5.3	737
Malda	I	14.6	35.1	9.0	34.5	9.8	42.6	10.5	1266
	II	57.8	38.1	11.1	48.1	14.0	35.3	23.4	5011
	III	26.0	38.7	11.1	49.4	11.4	42.8	21.5	2258
	IV	0.9	21.6	16.7	50.4	13.3	49.4	9.1	74
	V	0.5	46.6	4.5	43.4	5.3	48.0	5.4	41
	VI	0.2	64.9	0.5	66.5	1.3	62.9	3.3	20
Murshidabad	I	28.5	36.3	18.6	49.1	17.7	46.9	14.7	4743
	II	47.2	40.1	15.6	45.6	18.9	46.4	17.8	7848
	III	16.1	44.4	20.8	50.8	15.1	52.4	11.1	2687
	IV	1.7	45.9	13.1	36.9	2.8	55.0	0.1	279
	V	0.9	60.3	0.0	63.1	0.0	55.0	0.0	145
	VI	5.6	34.0	18.1	43.5	17.0	48.6	13.0	938

* I= Upto Rs.15, II= Rs.16-Rs.25, III= Rs.26-Rs.50, IV= Rs.51-Rs.75, V= Rs.76-Rs.100, VI=Rs.101 and above

Table 5.22 continued

Table 5.22

District	Amount	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Nadia	I	29.0	33.6	12.4	40.5	14.4	40.9	15.0	16315
	II	48.5	37.6	13.2	41.9	16.1	44.0	12.5	27254
	III	21.0	40.0	13.9	42.0	14.9	42.8	12.2	11775
	IV	0.3	37.3	15.3	36.7	22.1	53.4	12.3	166
	V	0.4	36.6	9.2	45.4	12.1	51.4	6.5	219
	VI	0.8	36.8	13.6	41.1	10.8	34.6	18.1	455
24-Parg N	I	11.4	38.4	17.0	43.6	18.4	46.5	13.5	7497
	II	32.3	44.8	16.5	53.1	16.4	53.9	15.5	21176
	III	48.9	41.3	15.6	50.2	15.4	52.4	13.6	32100
	IV	4.8	46.9	14.2	49.9	15.3	51.7	13.2	3148
	V	1.8	46.1	16.7	57.1	10.6	54.8	15.0	1210
	VI	0.8	37.2	15.9	58.9	12.6	54.4	7.8	505
24-Parg S	I	10.3	43.9	15.3	45.5	17.3	45.0	13.7	7291
	II	32.8	42.2	17.9	51.9	15.9	49.4	14.7	23170
	III	45.0	39.8	14.5	45.8	13.4	47.4	13.2	31804
	IV	5.9	47.6	14.8	44.4	11.2	45.6	11.5	4146
	V	3.0	38.4	8.3	36.0	11.8	34.9	21.9	2137
	VI	3.0	52.8	14.7	53.2	13.5	52.5	12.5	2110
Calcutta	I	0.5	30.0	16.5	39.9	8.8	57.1	4.5	145
	II	9.3	29.9	16.8	45.5	16.1	46.9	13.9	2854
	III	54.8	36.1	14.7	44.3	15.1	50.5	11.7	16722
	IV	14.5	41.1	15.6	46.5	13.3	53.0	17.5	4426
	V	14.0	41.0	19.3	45.1	18.6	53.0	14.1	4290
	VI	6.9	51.2	20.0	55.6	18.7	60.2	15.5	2102
Howrah	I	27.4	35.2	18.7	40.3	17.2	41.5	13.3	8184
	II	37.4	36.5	15.7	43.6	17.0	44.4	13.0	11184
	III	23.6	44.3	16.9	52.3	13.8	52.3	13.0	7047
	IV	5.3	56.4	13.4	60.0	14.9	45.2	25.1	1570
	V	1.5	40.8	19.1	46.8	16.8	51.5	20.1	445
	VI	4.8	47.4	19.2	57.3	14.2	52.1	8.6	1446
Hooghli	I	42.8	39.6	16.9	48.7	17.7	48.7	19.0	23648
	II	33.9	48.4	21.4	55.0	19.1	53.8	16.6	18725
	III	15.7	40.5	18.2	44.9	18.1	51.4	17.1	8658
	IV	5.7	45.0	16.0	50.2	13.0	63.5	11.9	3149
	V	1.2	45.9	12.6	51.1	12.2	37.8	26.5	669
	VI	0.6	40.3	14.2	44.9	17.0	39.2	24.0	348

Table 5.22 continued

Table 5.22

District	Amount	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Midnapur	I	22.3	31.6	11.2	37.4	13.0	38.8	11.7	13834
	II	45.7	36.9	14.3	42.0	15.9	41.7	14.9	28390
	III	23.9	36.6	15.0	42.6	16.3	44.2	13.4	14826
	IV	1.4	41.5	11.9	45.7	12.8	37.9	14.5	840
	V	5.4	46.2	12.2	52.7	16.6	39.5	21.8	3347
	VI	1.4	45.9	5.9	51.3	8.0	48.7	10.2	848
Bankura	I	37.8	34.5	15.1	38.3	14.6	33.4	15.9	4716
	II	37.3	32.7	14.1	31.9	20.5	37.4	11.8	4647
	III	21.1	33.9	16.5	42.2	16.1	37.7	14.8	2629
	IV	2.7	40.6	12.6	48.9	11.1	43.8	16.7	332
	V	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	VI	1.1	21.9	10.0	32.5	12.4	30.8	15.1	140
Purulia	I	27.4	36.9	20.9	42.4	14.4	44.7	15.8	3155
	II	34.0	33.7	13.2	39.4	14.3	34.2	10.8	3915
	III	32.7	29.8	10.8	31.8	21.1	29.3	19.3	3764
	IV	2.8	47.7	8.6	58.7	6.9	52.9	8.0	326
	V	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	VI	3.0	40.4	9.3	59.3	2.5	46.2	3.7	350
Burdwan	I	37.3	45.1	13.9	47.6	18.1	42.5	20.0	17671
	II	33.9	43.5	16.6	48.4	15.7	48.7	14.7	16089
	III	19.5	40.9	15.8	48.4	15.9	49.8	17.8	9237
	IV	5.2	51.0	8.7	39.0	21.3	57.3	15.0	2467
	V	3.0	55.6	10.1	58.5	11.0	63.2	5.5	1446
	VI	1.1	62.1	2.4	56.4	7.4	62.1	11.8	525
Birbhum	I	41.8	31.2	14.1	34.8	16.1	38.1	13.5	7784
	II	44.9	39.4	15.3	47.8	16.9	43.4	15.4	8363
	III	12.2	45.4	13.4	56.2	10.6	51.8	10.1	2281
	IV	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	V	1.0	30.3	6.8	34.0	9.7	39.2	2.4	195
	VI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
West Bengal	I	23.2	37.0	16.1	42.7	17.1	42.5	16.6	123515
	II	38.6	39.8	16.4	45.7	17.6	45.4	16.2	205400
	III	29.3	39.3	15.9	45.8	16.2	47.7	15.6	155821
	IV	4.0	46.6	14.6	47.7	15.3	52.8	16.0	21098
	V	2.8	47.0	15.7	50.5	16.4	47.3	20.6	15076
	VI	2.1	44.1	18.6	51.6	15.1	50.4	14.9	11350

Table 5.23: Distribution of students by difficulties caused by domestic or other work, subject-wise mean scores, standard deviations(SD) and estimated population for each district

District	Extent *	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Coochbehar	I	17.0	31.0	13.4	35.4	16.5	37.6	16.3	4518
	II	41.6	30.9	16.1	36.1	16.8	36.9	17.8	11075
	III	41.5	41.5	16.5	44.7	16.1	46.4	17.1	11060
Jalpaiguri	I	12.4	30.6	20.1	40.3	15.6	33.8	18.0	5318
	II	36.7	36.2	14.6	38.0	15.9	43.6	14.5	15762
	III	51.0	43.7	17.7	46.3	17.7	54.1	15.9	21901
Siliguri	I	22.0	22.9	15.5	30.7	12.1	31.4	18.1	1739
	II	51.9	31.0	15.2	40.9	16.7	39.4	14.1	4099
	III	26.1	35.0	14.5	36.6	16.8	40.3	13.4	2057
W.Dinajpur	I	30.8	32.5	15.3	36.0	17.4	33.6	14.4	11135
	II	42.1	37.7	14.2	42.9	15.6	42.5	14.5	15222
	III	27.1	41.8	16.8	44.7	18.8	43.9	17.2	9791
Malda	I	15.0	34.2	10.5	41.3	9.9	41.6	13.1	3913
	II	48.3	36.4	13.4	44.9	15.1	43.8	14.6	12589
	III	36.7	35.5	16.0	48.3	15.2	32.7	23.2	9564
Murshidabad	I	20.9	37.3	16.3	44.9	15.3	43.3	14.1	11759
	II	41.7	37.9	17.1	45.7	16.6	46.2	16.3	23490
	III	37.4	41.9	16.6	47.9	18.4	50.2	15.4	21077
Nadia	I	14.5	29.5	11.8	36.4	13.4	41.1	10.6	14018
	II	38.6	35.7	13.6	41.4	15.1	42.8	13.4	37211
	III	46.9	38.4	13.8	42.5	15.4	43.5	13.4	45182
24-Parg N	I	13.9	35.0	15.3	43.6	19.7	48.0	16.4	16553
	II	41.6	40.5	16.2	48.1	16.9	50.3	14.3	49751
	III	44.5	44.3	16.5	50.2	16.3	53.0	14.6	53166
24-Parg S	I	11.7	40.5	16.7	47.5	19.1	46.9	16.8	14366
	II	44.2	43.2	16.8	48.2	16.4	47.9	15.1	54112
	III	44.1	41.1	16.2	45.8	15.4	45.7	14.6	53983

* I= Regularly, II= Occasionally, III= Never

Table 5.23 continued

Table 5.23

District	Extent	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Calcutta	I	4.0	28.5	17.6	37.3	15.0	48.1	16.5	2006
	II	28.3	35.4	15.2	44.1	15.9	49.3	11.1	14107
	III	67.7	40.7	17.4	47.1	17.0	52.9	14.5	33808
Howrah	I	13.7	33.7	16.0	40.0	16.4	40.9	13.3	6455
	II	42.3	37.5	16.8	44.4	17.7	44.8	15.0	19989
	III	44.0	41.8	19.5	50.1	18.4	47.0	17.9	20772
Hooghli	I	10.8	34.6	19.9	39.0	25.5	41.2	16.8	10796
	II	40.3	41.0	19.5	47.0	20.4	48.7	17.6	40126
	III	48.9	44.2	17.6	49.7	17.7	52.4	18.8	48676
Midnapur	I	21.3	33.5	15.8	41.6	16.8	39.4	13.9	30979
	II	50.6	37.2	13.7	41.4	15.6	42.2	14.6	73771
	III	28.1	40.0	14.8	42.9	15.9	43.2	15.5	40976
Bankura	I	22.2	20.6	12.6	26.8	15.8	26.1	13.8	8305
	II	44.9	30.8	13.1	32.7	15.5	33.8	12.9	16807
	III	32.9	33.8	14.7	41.4	14.6	37.9	12.5	12339
Purulia	I	17.7	29.6	14.3	33.9	17.6	38.9	13.7	6161
	II	67.1	32.7	13.9	33.9	19.1	35.3	17.0	23328
	III	15.2	37.4	13.9	45.3	15.2	41.8	12.0	5271
Burdwan	I	13.3	36.8	14.4	42.7	15.4	44.1	15.3	11299
	II	40.2	42.0	15.5	47.4	16.9	46.0	17.4	34125
	III	46.5	46.2	15.7	50.1	17.8	51.7	17.6	39560
Birbhum	I	19.2	28.1	15.5	31.9	20.6	36.1	17.4	6842
	II	45.4	33.2	16.4	41.2	18.1	39.4	16.3	16178
	III	35.4	39.7	15.2	44.4	15.9	44.0	13.3	12621
West Bengal	I	15.5	33.1	16.2	39.8	18.2	40.5	15.9	166172
	II	43.2	38.0	16.0	43.5	17.4	44.4	15.9	461751
	III	41.3	41.7	16.5	46.8	16.9	48.0	16.6	441811

5.24 : Distribution of students by difficulties due to non-availability of books etc., subject-wise mean scores, standard deviations(SD) and estimated population for each district.

District	Extent *	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Coochbehar	I	26.2	33.0	15.4	37.2	16.2	38.3	17.4	6975
	II	28.4	28.4	14.0	34.7	16.7	36.4	15.2	7580
	III	45.4	40.8	17.0	43.8	16.5	45.0	18.7	12098
Jalpaiguri	I	19.0	33.8	17.5	39.5	14.2	39.5	16.8	8179
	II	26.0	37.7	15.8	39.2	16.2	44.1	17.6	11222
	III	55.0	42.3	17.8	45.2	18.2	52.5	15.9	23753
Siliguri	I	22.9	29.1	13.9	32.6	13.6	37.7	17.5	1812
	II	39.3	30.3	14.6	40.6	16.1	37.8	13.5	3112
	III	37.8	30.8	17.5	37.1	17.3	38.3	15.6	2994
W.Dinajpur	I	36.8	32.3	15.0	36.4	17.7	34.0	16.8	13297
	II	30.7	38.0	13.6	42.3	15.4	42.3	15.3	11081
	III	32.6	41.5	16.5	45.6	17.5	44.2	14.7	11770
Malda	I	24.9	33.3	12.8	42.8	11.9	44.2	13.6	6479
	II	25.1	37.4	11.5	45.3	15.9	42.9	16.9	6527
	III	50.0	35.9	15.5	46.9	15.1	35.1	20.8	13022
Murshidabad	I	26.5	39.3	15.5	45.3	14.2	46.7	12.9	14724
	II	31.0	38.5	17.1	45.9	16.1	47.3	17.4	17253
	III	42.5	39.9	17.8	47.6	19.1	47.2	16.0	23629
Nadia	I	18.0	35.3	13.2	42.2	14.6	42.8	14.5	17373
	II	33.8	35.8	14.2	41.6	14.6	42.2	13.4	32564
	III	48.2	36.6	13.6	40.4	15.6	43.3	12.2	46477
24-Parg N	I	22.1	37.1	16.6	48.1	18.1	51.5	14.6	26555
	II	33.7	41.4	15.5	47.1	17.1	49.6	15.5	40477
	III	44.1	43.6	16.7	49.6	16.6	52.2	14.2	52902
24-Parg S	I	20.6	43.9	15.8	46.2	17.7	45.2	17.5	25407
	II	34.0	41.4	17.2	46.2	17.3	46.8	14.9	41814
	III	45.4	41.4	16.2	48.1	14.8	47.7	13.9	55913

* I= Regularly, II= Occasionally, III= Never

Table 5.24 continued

Table 5.24

District	Extent	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Calcutta	I	25.1	35.5	16.4	47.9	15.4	48.2	11.1	12561
	II	20.0	38.2	17.4	44.0	16.0	53.6	13.3	9993
	III	54.9	40.4	17.1	45.6	17.5	52.6	14.8	27486
Howrah	I	17.4	33.2	15.7	42.2	15.8	44.7	13.9	8188
	II	32.7	36.5	17.4	42.9	18.4	42.5	16.8	15372
	III	49.9	42.5	18.5	50.1	17.9	47.2	16.2	23508
Hooghli	I	16.2	34.2	16.9	41.0	19.0	43.8	18.3	16004
	II	37.7	41.3	19.3	45.8	20.6	50.8	17.7	37279
	III	46.1	45.1	18.5	50.9	19.2	50.9	18.9	45597
Midnapur	I	27.1	35.4	15.2	42.0	16.5	39.1	14.0	39442
	II	35.7	37.0	14.2	40.7	15.6	42.9	14.1	51892
	III	37.2	39.1	14.0	42.7	16.0	42.8	15.7	54104
Bankura	I	22.2	23.5	14.1	28.8	16.3	28.0	14.3	8333
	II	36.3	28.2	13.8	30.7	15.7	32.2	13.6	13636
	III	41.5	33.7	13.8	40.3	14.6	37.2	12.3	15584
Purulia	I	23.4	31.3	12.3	37.7	15.9	38.1	12.4	8162
	II	42.5	34.5	14.4	34.1	18.4	39.2	15.1	14798
	III	34.1	31.7	14.9	36.4	20.6	33.2	18.3	11881
Burdwan	I	16.2	42.0	13.9	46.7	15.5	46.5	15.8	13730
	II	29.1	43.0	16.1	47.6	17.7	46.0	18.5	24703
	III	54.7	43.8	16.1	48.5	17.5	50.2	17.2	46490
Birbhum	I	18.6	29.5	15.4	33.6	19.2	36.2	16.3	6620
	II	30.1	34.8	15.3	43.0	17.7	42.2	14.2	10707
	III	51.3	36.2	17.0	41.7	18.0	40.9	16.3	18269
West Bengal	I	21.9	35.9	16.0	42.4	17.2	42.7	16.2	233848
	II	32.7	38.2	16.3	43.0	17.6	44.9	16.2	350018
	III	45.4	40.6	16.7	46.0	17.4	46.7	16.6	485485

Table 5.25: Distribution of students by extra textual reading habit, subject-wise mean scores, standard deviations (SD) and estimated population for each district

District	Extent *	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Coochbehar	I	5.8	56.4	12.4	56.9	12.0	51.6	23.9	1545
	II	13.3	45.6	14.2	46.3	16.0	48.7	15.3	3541
	III	10.1	43.0	16.2	45.9	17.4	48.3	17.8	2699
	IV	70.7	30.3	14.5	35.8	15.9	37.4	16.6	18826
Jalpaiguri	I	7.6	56.1	16.9	52.4	16.8	64.3	15.7	3280
	II	25.7	46.3	16.9	49.9	16.0	55.7	16.5	11050
	III	19.0	39.0	13.0	41.6	15.4	41.5	18.5	8152
	IV	47.7	33.0	16.4	37.4	16.6	43.1	13.7	20499
Siliguri	I	1.5	34.6	14.5	37.4	16.1	32.3	16.3	116
	II	12.2	39.3	14.7	44.8	14.2	42.8	12.6	958
	III	15.3	31.8	13.1	41.7	11.0	40.4	9.7	1208
	IV	71.0	28.1	15.7	35.2	17.1	36.5	16.4	5602
W.Dinajpur	I	3.7	40.2	18.4	46.3	12.3	32.6	11.7	1326
	II	10.3	44.3	15.4	41.5	20.5	39.4	16.7	3717
	III	9.3	38.0	16.8	43.3	19.6	43.9	15.9	3360
	IV	76.8	35.8	15.0	40.7	16.8	39.7	16.3	27787
Malda	I	1.4	39.4	16.8	46.3	14.5	38.7	21.1	356
	II	16.3	41.8	12.3	48.8	14.7	44.9	18.4	4232
	III	18.6	38.5	14.4	48.5	17.5	43.6	20.2	4814
	IV	63.7	33.7	13.0	43.6	13.4	36.6	17.9	16515
Murshidabad	I	5.9	48.9	15.8	50.8	15.3	54.4	14.7	3294
	II	14.8	44.7	15.4	47.6	16.5	53.6	15.9	8315
	III	12.2	38.4	18.2	49.7	14.9	51.0	13.2	6876
	IV	67.1	37.2	16.7	44.9	17.6	44.4	15.2	37788
Nadia	I	1.7	38.7	21.9	48.0	16.3	49.8	14.5	1600
	II	25.2	40.6	13.7	46.1	14.0	44.7	12.7	24283
	III	15.8	38.7	12.8	45.8	13.8	45.4	13.1	15275
	IV	57.3	33.2	13.1	37.6	14.8	41.0	12.9	55255
24-Parg N	I	4.6	53.7	16.3	57.7	13.9	59.9	12.6	5512
	II	23.0	47.9	13.4	52.4	15.0	54.6	14.0	27463
	III	25.6	40.0	15.7	48.2	15.7	50.1	14.3	30668
	IV	46.8	37.9	16.9	45.6	18.5	49.3	15.1	55973
24-Parg S	I	4.6	43.6	15.8	46.7	16.8	48.4	12.5	5694
	II	30.4	42.8	15.6	47.2	14.0	48.0	14.2	37323
	III	30.3	43.6	17.1	49.6	15.5	48.3	14.7	37236
	IV	34.7	39.5	16.6	44.8	18.3	44.5	16.1	42662

* I= Regular, II= Occasional, III= Rare, IV= No

Table 5.25 continued

Table 5.25

District	Extent	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Calcutta	I	14.4	44.8	21.1	49.7	20.7	57.7	16.4	7183
	II	46.4	41.1	15.4	47.0	16.1	52.8	11.9	23233
	III	20.4	35.3	16.6	44.8	14.2	48.5	11.5	10188
	IV	18.9	31.9	15.3	41.5	16.4	47.8	16.1	9437
Howrah	I	9.8	52.6	18.4	59.9	15.9	55.0	15.3	4631
	II	25.9	44.1	17.5	52.3	16.2	49.7	18.1	12253
	III	17.7	37.1	16.7	45.7	16.6	45.6	15.7	8356
	IV	46.6	33.8	16.5	40.4	17.4	40.8	13.4	22054
Hooghli	I	3.6	50.4	18.4	52.1	21.0	56.0	17.2	3599
	II	17.4	45.0	17.4	49.4	18.9	53.5	15.7	17366
	III	28.0	45.0	18.0	53.6	17.7	53.4	17.0	27842
	IV	51.0	38.3	19.1	43.0	20.4	45.9	19.3	50791
Midnapur	I	3.3	35.5	18.2	43.0	13.4	43.1	13.9	4845
	II	20.7	41.9	14.1	44.7	16.0	45.6	14.7	30036
	III	26.2	37.0	14.1	43.0	16.4	43.4	14.6	38086
	IV	49.8	35.5	14.4	39.9	15.6	39.3	14.5	72327
Bankura	I	1.2	33.5	18.2	37.9	19.5	45.4	15.1	460
	II	6.6	37.6	12.6	44.8	16.1	40.4	14.1	2492
	III	23.4	33.7	14.3	38.4	16.5	36.8	14.1	8793
	IV	68.7	27.2	13.9	31.7	15.4	31.2	12.9	25808
Purulia	I	3.2	33.4	16.1	32.2	21.7	35.9	15.2	1108
	II	17.6	36.5	13.7	41.5	16.6	45.6	14.0	6105
	III	25.5	37.4	15.4	37.9	18.9	40.8	14.4	8837
	IV	53.7	29.5	12.8	33.2	18.4	32.3	15.6	18631
Burdwan	I	5.6	58.5	12.6	58.6	19.1	58.9	17.7	4769
	II	21.0	46.5	16.1	52.5	16.9	53.6	17.9	17841
	III	18.6	44.7	14.2	47.7	17.5	50.1	15.2	15824
	IV	54.7	41.2	15.1	45.9	16.4	45.3	17.1	46427
Birbhum	I	0.4	49.1	7.6	62.1	1.3	62.5	3.8	126
	II	8.2	42.2	13.1	49.0	14.2	45.1	13.7	2907
	III	21.9	45.8	13.9	51.8	15.2	48.3	13.8	7781
	IV	69.5	30.0	15.3	36.0	18.0	37.3	15.7	24689
West Bengal	I	4.6	47.9	18.9	51.4	18.2	53.5	17.1	49453
	II	21.8	43.4	15.3	48.1	16.1	49.7	15.4	233124
	III	22.1	40.3	16.1	46.9	16.8	47.1	15.5	236002
	IV	51.5	35.3	16.0	40.9	17.6	41.8	16.3	551080

Table 5.26: Distribution of students by regularity of care taken by any family member, subject-wise mean scores, standard deviations(SD) and estimated population for each district

District	Extent *	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Coochbehar	I	34.9	43.8	17.0	46.0	17.3	46.6	19.4	9294
	II	46.0	30.5	14.7	37.1	16.6	37.5	16.3	12233
	III	19.1	31.1	14.0	33.1	13.1	38.5	16.1	5086
Jalpaiguri	I	54.4	42.4	17.8	44.2	17.7	52.2	16.4	23380
	II	35.6	36.9	15.6	41.5	16.4	43.3	16.7	15317
	III	10.0	31.2	19.2	38.4	15.6	39.9	15.8	4285
Siliguri	I	22.1	34.1	15.6	41.0	16.1	40.5	14.1	1745
	II	54.8	33.1	14.8	39.6	16.8	41.0	15.0	4324
	III	23.0	19.4	12.5	28.6	11.7	27.7	12.4	1816
W.Dinajpur	I	36.5	39.8	17.4	42.7	20.7	38.1	20.5	12777
	II	41.5	37.9	14.7	41.4	15.6	40.7	15.9	14518
	III	22.0	32.2	14.8	38.9	15.8	40.2	11.2	7708
Malda	I	40.6	37.0	14.0	46.1	15.0	35.5	21.5	10533
	II	44.1	36.3	13.2	44.8	15.0	40.6	16.5	11447
	III	15.4	32.3	13.8	45.5	12.1	45.2	14.5	3992
Murshidabad	I	29.2	41.0	18.1	47.3	18.8	49.2	16.4	16192
	II	49.1	38.8	17.1	46.3	17.0	46.9	15.9	27247
	III	21.8	38.6	14.8	45.8	14.1	44.8	13.9	12101
Nadia	I	36.9	39.9	14.8	44.9	15.0	44.3	14.4	35541
	II	42.9	33.9	13.1	38.7	16.2	41.1	12.9	41298
	III	20.2	34.1	11.4	39.6	11.2	43.9	10.3	19428
24-Parg N	I	40.2	43.8	16.2	50.4	15.6	52.4	14.1	48116
	II	42.7	40.9	16.6	48.4	17.6	50.8	15.6	51122
	III	17.1	37.2	16.1	44.1	18.6	49.5	14.4	20443
24-Parg S	I	51.2	41.0	16.8	46.1	15.2	46.3	14.0	62926
	II	40.3	43.8	15.8	48.6	17.5	48.2	15.7	49528
	III	8.6	38.5	16.0	45.0	16.9	44.3	17.2	10530

* I= Regular, II= Occasional, III= Never

Table 5.26 continued

Table 5.26

District	Extent	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Calcutta	I	59.8	40.7	17.7	46.4	16.9	53.7	14.6	29912
	II	31.2	36.5	15.6	43.6	17.3	49.5	12.1	15600
	III	8.9	32.7	15.9	49.8	12.6	45.6	10.8	4470
Howrah	I	49.3	40.8	18.3	48.4	18.4	46.8	16.9	23256
	II	37.7	38.2	17.8	45.3	17.7	44.7	15.5	17776
	III	13.0	33.4	17.2	41.2	17.6	41.9	14.0	6155
Hooghli	I	33.8	40.1	18.3	45.8	19.8	49.9	16.3	33649
	II	50.0	45.8	18.3	50.4	18.5	51.2	19.8	49743
	III	16.1	33.3	18.7	41.4	23.4	44.8	17.3	16042
Midnapur	I	45.0	40.4	14.7	44.2	16.5	43.7	15.5	65262
	II	40.8	35.4	14.3	40.6	15.4	40.5	14.1	59136
	III	14.2	32.4	13.6	37.3	14.6	39.6	14.1	20582
Bankura	I	34.4	34.2	13.6	39.4	14.7	38.0	12.7	12889
	II	41.8	28.0	14.1	32.2	16.1	32.2	13.2	15676
	III	23.9	25.2	14.2	30.6	16.9	29.2	13.6	8949
Purulia	I	34.4	36.0	15.7	41.5	16.8	41.4	13.8	11895
	II	58.4	30.2	13.1	31.8	19.3	33.9	16.5	20175
	III	7.2	33.0	14.1	38.1	14.2	38.1	14.6	2505
Burdwan	I	35.3	47.6	15.7	50.9	18.8	52.0	17.6	29794
	II	41.6	40.7	15.7	47.4	16.6	46.5	16.9	35110
	III	23.1	43.3	14.4	46.7	15.5	48.2	16.4	19475
Birbhum	I	25.7	39.1	16.5	45.3	15.9	44.3	13.2	9165
	II	42.8	37.6	14.7	44.6	17.4	42.5	14.8	15252
	III	31.4	26.5	15.9	31.4	18.5	34.3	17.4	11178
West Bengal	I	40.9	41.1	16.6	46.1	17.1	47.1	16.3	436332
	II	42.7	38.3	16.3	43.9	17.8	44.5	16.6	455510
	III	16.4	34.3	15.9	40.6	17.2	42.7	15.6	174753

Table 5.27 : Distribution of students by relation concerned about wards' education, subject-wise mean scores, standard deviations (SD) and estimated population for each district

District	Relation *	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Coochbehar	I	16.4	42.0	16.1	44.3	16.6	43.4	20.7	3711
	II	68.9	34.5	17.1	39.5	17.8	41.8	18.0	15540
	III	9.2	33.4	11.0	37.5	13.4	39.0	10.0	2070
	IV	5.5	39.1	17.9	44.4	16.9	44.7	16.6	1241
Jalpaiguri	I	21.5	44.7	17.5	49.6	17.4	54.3	17.1	8438
	II	54.3	39.2	17.7	40.9	17.3	45.5	18.0	21299
	III	11.1	40.9	15.6	41.0	17.2	47.7	16.2	4363
	IV	13.0	36.8	14.0	41.9	14.5	47.3	11.9	5098
Siliguri	I	15.1	31.7	12.3	37.3	14.4	38.2	13.3	851
	II	60.8	36.0	15.5	41.8	18.6	42.2	14.7	3417
	III	13.8	32.3	14.2	38.5	13.9	42.7	11.9	774
	IV	10.3	24.8	9.1	30.2	12.1	31.2	15.0	578
W.Dinajpur	I	12.4	40.5	13.7	42.5	17.2	40.2	17.0	3511
	II	71.5	37.0	16.2	41.8	17.1	40.2	15.7	20224
	III	9.8	35.0	17.4	37.0	22.7	38.2	20.9	2757
	IV	6.3	41.6	8.8	44.0	13.8	43.4	11.0	1777
Malda	I	12.1	39.6	11.7	50.5	12.8	43.7	21.5	2587
	II	71.4	35.5	14.5	44.5	15.1	38.1	18.8	15315
	III	7.5	34.0	12.1	47.8	15.5	42.0	16.0	1604
	IV	9.1	38.6	12.0	47.1	11.9	42.7	19.5	1947
Murshidabad	I	14.4	40.6	17.6	49.8	18.0	49.9	15.6	6511
	II	66.4	41.1	16.9	48.6	16.8	49.3	15.9	30030
	III	11.3	37.7	18.5	44.7	18.5	45.4	16.0	5130
	IV	7.8	37.3	16.3	42.9	19.4	44.6	14.9	3547
Nadia	I	19.4	37.0	13.2	41.9	14.7	43.8	12.2	15755
	II	50.8	36.9	13.9	42.2	16.2	43.0	14.3	41278
	III	12.8	30.6	14.5	36.2	14.6	38.4	12.4	10362
	IV	17.0	37.0	10.7	41.0	9.9	42.9	8.3	13792
24-Parg N	I	21.0	47.0	13.6	50.4	16.3	53.6	13.2	21961
	II	59.8	40.1	17.1	48.5	17.6	51.9	15.0	62717
	III	10.9	40.6	16.7	47.7	17.8	50.2	13.2	11444
	IV	8.3	45.3	20.1	56.2	15.2	52.5	18.7	8694
24-Parg S	I	16.9	41.5	17.2	47.8	15.2	47.1	14.9	18748
	II	54.4	43.6	16.7	48.9	16.4	48.2	15.0	60446
	III	17.4	40.3	15.8	44.6	16.3	46.3	14.4	19350
	IV	11.3	40.7	15.2	44.8	17.9	44.3	17.9	12587

* I= Mother, II= Father, III= Brother/Sister, IV= Others

Table 5.27 continued

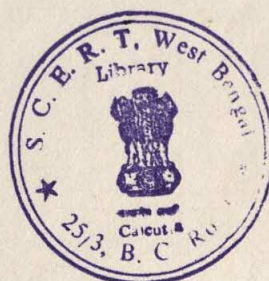


Table 5.27

District	Relation	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Calcutta	I	29.2	40.8	15.2	49.2	14.9	52.8	13.4	13496
	II	51.4	40.5	16.5	46.9	16.6	52.5	13.4	23737
	III	6.8	38.3	18.5	34.8	22.0	52.4	13.8	3131
	IV	12.5	36.3	16.8	45.4	14.7	52.8	11.9	5789
Howrah	I	17.4	45.0	19.5	55.4	15.7	52.8	16.3	6981
	II	57.7	37.7	16.6	46.1	17.1	44.3	15.0	23114
	III	16.2	37.9	18.2	43.7	19.0	43.5	15.0	6504
	IV	8.6	44.1	19.4	48.1	22.0	44.3	18.3	3459
Hooghli	I	22.6	42.7	15.3	51.8	17.1	54.7	15.0	19135
	II	55.9	41.4	18.7	45.6	19.5	47.4	19.2	47405
	III	12.7	49.9	22.2	55.2	20.0	51.3	19.1	10746
	IV	8.9	41.9	19.3	48.0	17.4	53.9	15.3	7561
Midnapur	I	15.8	40.7	16.4	46.7	18.6	46.3	14.6	18376
	II	61.1	39.0	14.2	43.2	15.3	42.5	14.6	71143
	III	15.7	37.4	13.9	40.9	16.5	42.4	14.8	18292
	IV	7.4	38.6	13.9	43.5	15.4	43.3	12.2	8631
Bankura	I	10.1	28.7	13.0	32.7	15.5	32.7	10.1	2910
	II	66.6	30.6	13.9	35.0	15.2	33.4	13.7	19270
	III	10.1	25.7	15.2	30.4	16.3	33.8	14.0	2922
	IV	13.2	31.6	15.1	36.5	18.7	35.6	13.3	3819
Purulia	I	8.1	33.2	16.0	39.2	12.7	47.0	12.8	2505
	II	61.8	33.7	14.2	37.9	17.1	37.4	13.4	19140
	III	15.7	26.7	14.1	21.8	22.6	26.7	20.9	4859
	IV	14.4	39.4	12.6	41.2	19.2	39.8	15.4	4467
Burdwan	I	12.6	46.4	14.2	50.7	18.5	50.0	21.4	8515
	II	71.1	43.2	15.7	48.5	16.8	48.4	17.6	48093
	III	6.5	38.0	18.9	45.3	16.5	46.4	15.5	4405
	IV	9.7	46.1	13.1	52.1	15.1	53.6	11.3	6589
Birbhum	I	22.0	43.1	16.3	48.0	19.1	46.1	13.4	6032
	II	57.8	36.7	15.6	42.8	18.4	43.6	14.1	15836
	III	9.5	35.2	12.5	38.2	15.8	39.1	13.4	2607
	IV	10.7	35.6	15.3	44.8	16.5	39.4	14.8	2943
West Bengal	I	17.7	42.0	16.0	48.1	17.1	49.1	15.9	158229
	II	59.9	39.3	16.4	44.9	17.3	45.5	16.5	536038
	III	12.2	37.9	17.4	42.3	19.0	44.0	16.4	109705
	IV	10.2	39.6	15.7	45.3	16.7	46.0	15.4	91634



Table 5.28: Distribution of students by guardians' expectations regarding wards' educational level, subject-wise mean scores, standard deviations (SD) and estimated population for each district

District	Educational level *	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Coochbehar	I	5.9	24.5	11.0	27.9	11.7	30.7	11.8	1571
	II	48.4	29.7	13.8	35.0	15.6	38.4	14.0	12904
	III	45.7	42.6	16.9	45.8	16.7	44.6	21.0	12178
Jalpaiguri	I	1.4	17.9	13.9	23.7	12.3	29.1	14.8	594
	II	27.5	30.8	15.6	36.5	14.2	41.9	12.4	11799
	III	71.1	43.0	16.9	45.4	17.4	50.4	18.1	30553
Siliguri	I	11.0	16.1	12.0	31.6	12.1	27.7	10.0	869
	II	52.2	28.4	14.5	33.5	15.5	35.2	15.7	4135
	III	36.9	37.0	14.5	44.7	16.2	44.8	12.8	2925
W.Dinajpur	I	3.7	26.7	11.5	31.5	15.8	33.7	11.9	1363
	II	56.1	34.1	14.7	39.2	17.0	37.9	16.8	20532
	III	40.2	42.0	15.7	44.7	17.0	43.1	15.3	14712
Malda	I	2.0	38.8	9.7	46.5	18.6	44.3	15.4	509
	II	43.4	34.3	11.7	42.7	13.5	40.0	17.4	11323
	III	54.6	36.6	15.6	47.7	14.9	38.6	19.8	14233
Murshidabad	I	6.1	35.5	16.0	45.7	17.2	45.0	11.7	3427
	II	57.9	36.4	16.7	44.6	17.1	44.7	16.1	32399
	III	36.0	44.4	16.6	49.5	16.6	51.7	14.5	20168
Nadia	I	1.5	34.0	13.4	39.6	15.8	40.4	11.5	1479
	II	48.3	35.0	12.5	40.1	14.4	41.8	12.0	46585
	III	50.1	37.7	14.7	42.5	15.8	43.8	13.7	48351
24-Parg N	I	2.6	26.8	15.3	32.1	14.7	44.4	11.9	3147
	II	38.8	38.6	16.7	44.7	17.9	48.1	15.5	46564
	III	58.6	44.0	15.8	51.8	15.8	53.6	13.9	70286
24-Parg S	I	1.6	31.0	13.3	41.4	17.0	34.3	18.3	1925
	II	40.0	39.1	15.7	46.7	16.8	45.0	15.8	49308
	III	58.4	43.9	16.7	47.4	15.9	48.8	13.4	71991

* I= Primary level, II= Secondary level, III= Higher education

Table 5.28 continued

Table 5.28

District	Educational level	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Calcutta	I	0.8	24.6	16.4	31.0	13.5	37.2	14.6	413
	II	22.7	32.3	14.3	40.4	14.3	49.1	12.7	11323
	III	76.5	40.7	17.4	47.7	17.0	52.6	13.9	38246
Howrah	I	5.5	26.3	14.2	31.7	16.0	36.8	15.2	2576
	II	46.3	33.9	16.8	40.6	17.8	41.3	14.2	21906
	III	48.2	45.0	17.5	53.4	15.7	49.9	16.7	22798
Hooghli	I	3.6	42.7	23.8	51.2	24.4	50.9	15.8	3607
	II	49.9	40.5	19.5	44.3	20.6	46.3	17.9	49532
	III	46.5	43.3	17.5	50.7	18.2	53.4	18.5	46195
Midnapur	I	3.5	33.7	17.1	44.5	15.2	41.1	16.2	5047
	II	46.5	34.5	14.6	39.0	15.4	40.9	14.3	67300
	III	50.0	39.9	14.2	44.1	16.2	42.7	15.2	72243
Bankura	I	9.6	14.9	7.3	17.7	10.9	17.8	9.6	3570
	II	42.5	29.0	13.7	33.4	15.7	33.5	11.9	15884
	III	48.0	32.7	14.3	38.2	15.5	36.3	13.8	17927
Purulia	I	1.0	15.3	3.7	25.9	1.2	26.6	0.5	279
	II	36.8	29.0	14.4	31.3	18.0	33.4	13.7	10582
	III	62.2	36.5	13.1	41.6	16.6	40.8	13.7	17875
Burdwan	I	5.0	36.2	12.4	46.9	17.5	43.3	22.4	4226
	II	51.5	39.5	15.4	44.2	16.0	45.2	15.8	43959
	III	43.5	48.8	14.8	52.8	17.6	52.9	17.9	37115
Birbhum	I	10.8	28.1	17.0	32.2	23.0	36.5	20.2	3865
	II	50.0	31.6	15.7	38.1	18.9	38.5	16.2	17911
	III	39.2	40.7	15.2	46.2	15.0	44.2	13.2	14035
West Bengal	I	3.6	30.1	17.1	37.6	19.8	38.3	17.9	38473
	II	44.5	35.8	16.0	41.5	17.2	42.8	15.7	473954
	III	51.9	41.9	16.2	47.3	16.9	48.0	16.3	551837

Table 5.29: Distribution of students by guardians' expectations regarding wards' future occupation, subject-wise mean scores, standard deviations (SD) and estimated population for each district

District	Occupation level *	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Coochbehar	I	0.6	25.5	16.2	27.2	16.4	29.1	14.9	151
	II	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	III	82.7	36.1	16.7	40.4	16.8	42.4	17.0	22688
	IV	1.8	33.4	15.3	33.9	13.8	31.7	15.5	495
	V	0.7	44.1	16.5	62.1	8.5	55.9	13.7	199
	VI	2.5	29.3	11.2	29.8	12.1	36.8	9.0	677
	VII	11.7	29.9	16.0	33.8	17.3	31.2	21.9	3219
Jalpaiguri	I	0.6	26.7	8.4	26.5	6.3	29.4	4.4	286
	II	0.8	42.3	7.6	48.8	14.0	59.4	12.3	387
	III	88.3	41.4	17.2	43.7	17.6	49.2	17.1	40268
	IV	1.4	31.3	15.4	36.8	21.2	38.8	20.1	627
	V	0.6	35.0	16.5	36.7	6.3	44.3	2.6	268
	VI	0.9	36.7	6.5	34.2	9.5	42.1	7.4	408
	VII	7.3	37.0	18.0	35.9	17.0	46.4	18.0	3341
Siliguri	I	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	II	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	III	84.0	32.0	15.2	38.8	16.0	39.4	14.4	6668
	IV	0.8	53.7	3.1	45.8	13.3	50.5	8.0	63
	V	1.1	23.9	0.0	24.9	0.0	33.3	0.0	87
	VI	6.3	8.7	0.3	24.2	2.6	19.3	2.3	498
	VII	7.7	31.0	12.0	37.0	11.4	42.2	12.0	614
W.Dinajpur	I	0.9	25.2	7.3	35.4	11.7	45.3	2.2	325
	II	0.7	21.3	12.1	36.6	16.6	38.7	14.0	273
	III	85.7	39.1	14.9	42.5	17.4	40.3	17.3	32319
	IV	1.9	28.2	17.8	37.8	20.6	47.6	14.9	721
	V	0.3	38.4	17.2	47.2	24.7	49.9	15.0	125
	VI	2.1	25.9	13.3	27.2	15.0	33.1	15.1	774
	VII	8.4	28.6	14.7	34.2	16.7	40.7	12.5	3185
Malda	I	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39
	II	0.2	25.7	0.0	47.0	0.0	60.6	0.0	
	III	89.7	35.0	13.1	44.9	13.7	39.5	18.1	21492
	IV	2.0	20.9	13.1	30.2	9.9	29.0	19.1	477
	V	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	VI	0.7	22.9	5.6	23.8	17.0	27.9	12.3	158
	VII	7.5	38.3	15.0	43.3	12.5	39.8	13.1	1796
Murshidabad	I	0.3	23.1	15.9	44.1	19.9	50.6	14.8	177
	II	1.2	35.4	14.3	38.9	12.9	49.8	12.1	676
	III	68.8	41.5	17.0	47.4	16.5	47.8	15.2	38853
	IV	5.4	35.2	17.6	42.7	21.3	44.3	14.9	3033
	V	4.3	36.6	19.2	47.6	20.5	48.4	16.4	2410
	VI	1.7	55.5	8.1	58.1	9.6	36.5	29.9	957
	VII	18.4	36.6	16.3	44.0	16.3	47.4	16.4	10399

* I= Manual labourer, II= Skilled worker, III= Service holder, IV= Petty trader, V= Businessman, VI= Cultivator, VII= Other gainful and non-gainful work

Table 5.29 continued

Table 5.29

District	Occupation level	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Nadia	I	0.1	23.2	0.0	33.3	0.0	73.6	0.0	92
	II	0.9	28.2	9.1	30.1	11.3	32.6	10.0	861
	III	84.6	36.5	14.1	41.6	15.1	42.7	13.3	82191
	IV	2.1	36.0	14.5	37.8	13.1	42.6	11.2	2000
	V	2.8	26.5	8.9	32.0	19.8	41.4	8.5	2723
	VI	0.6	30.4	9.5	42.1	14.5	46.5	22.3	591
	VII	9.0	38.0	12.8	41.6	13.4	42.2	11.5	8719
24-Parg N	I	0.1	47.8	11.4	55.1	14.1	55.7	11.3	133
	II	2.7	27.3	14.2	44.4	20.9	46.4	13.6	3201
	III	82.6	42.4	17.0	50.2	16.7	52.5	14.6	98088
	IV	2.9	34.3	11.6	37.4	15.1	43.4	8.8	3433
	V	1.6	29.2	16.6	38.7	18.4	46.4	13.4	1922
	VI	0.7	44.8	13.7	42.9	19.2	41.9	17.2	785
	VII	9.5	40.0	13.3	43.7	16.6	47.6	15.6	11240
24-Parg S	I	0.2	35.2	3.7	33.8	17.6	49.8	12.3	223
	II	1.2	46.5	4.8	39.5	14.0	47.6	3.9	1466
	III	80.5	42.2	16.6	46.8	15.6	47.2	13.4	101957
	IV	3.2	46.8	14.8	52.9	15.1	43.5	16.6	4016
	V	1.6	41.2	14.8	47.7	22.7	49.2	12.8	1977
	VI	2.7	32.4	9.7	47.5	16.7	39.9	16.0	3462
	VII	10.8	45.3	15.8	49.9	17.8	48.8	20.7	13629
Calcutta	I	0.1	32.6	0.0	32.2	0.0	38.9	0.0	32
	II	0.6	19.9	7.7	32.8	7.7	41.8	13.7	302
	III	87.2	39.5	17.2	46.7	17.2	52.2	14.2	43174
	IV	1.8	41.4	10.5	47.0	13.1	52.1	12.2	883
	V	3.7	29.3	9.9	38.2	13.6	51.7	12.1	1855
	VI	0.1	13.3	0.0	0.0	0.0	50.4	0.0	71
	VII	6.4	36.8	19.7	44.4	16.1	50.3	11.8	3171
Howrah	I	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	II	2.6	40.9	17.9	44.8	17.9	41.6	12.3	1231
	III	69.5	42.0	18.0	49.2	17.6	47.9	16.0	32415
	IV	2.8	44.2	14.8	55.7	15.2	53.8	13.6	1300
	V	8.9	40.9	14.1	53.7	14.3	43.3	12.2	4140
	VI	0.3	27.2	22.7	41.5	15.8	27.8	22.2	131
	VII	15.9	29.7	15.3	37.4	18.2	41.1	15.4	7390
Hooghli	I	0.8	27.5	0.0	14.8	0.0	21.8	0.0	811
	II	0.5	46.5	9.0	47.1	17.4	54.1	13.6	523
	III	78.0	42.7	18.7	48.8	18.7	50.6	17.4	78738
	IV	0.7	31.7	18.3	35.7	24.6	40.0	15.7	751
	V	5.5	29.1	17.2	33.3	22.7	46.5	15.1	5596
	VI	1.3	34.8	11.3	40.0	18.6	34.2	17.3	1279
	VII	13.2	43.3	22.7	49.9	22.9	48.9	22.0	13283

Table 5.29 continued

Table 5.29

District	Occupation level	%	Bengali		Mathematics		E.V.S.		Population
			Mean	SD	Mean	SD	Mean	SD	
Midnapur	I	0.1	31.0	0.0	44.4	0.0	35.5	0.0	146
	II	0.1	57.4	0.0	57.7	0.0	57.6	0.0	146
	III	69.1	37.5	14.4	41.8	16.0	42.5	14.8	94778
	IV	2.5	35.2	12.5	39.6	6.9	33.4	13.6	3409
	V	2.3	38.9	13.5	46.7	14.1	40.8	14.7	3112
	VI	2.5	34.1	8.0	39.7	7.3	42.5	9.9	3413
	VII	23.5	34.9	14.5	40.7	15.9	40.9	14.3	32221
Bankura	I	2.7	15.5	0.8	19.1	1.5	19.0	7.4	1062
	II	12.3	18.1	9.0	23.5	9.8	25.5	7.9	4823
	III	68.5	31.9	14.1	35.9	15.6	35.0	13.1	26756
	IV	2.5	24.2	11.6	33.3	17.2	30.1	9.5	992
	V	0.4	26.9	4.8	31.7	11.4	39.8	5.0	157
	VI	2.8	32.9	12.5	36.4	11.0	32.1	11.8	1086
	VII	10.7	28.8	15.0	35.8	18.0	34.3	14.1	4200
Purulia	I	1.5	21.2	7.1	21.7	11.9	37.2	12.7	489
	II	0.9	33.6	13.9	35.5	10.0	36.7	5.0	291
	III	79.2	37.8	13.8	40.9	18.9	40.2	17.2	25919
	IV	2.0	24.9	9.0	31.7	16.1	26.0	12.7	658
	V	1.7	14.8	11.7	49.2	7.0	26.1	10.1	560
	VI	0.9	26.9	16.2	43.1	14.2	39.4	8.4	298
	VII	13.8	24.5	12.3	38.3	14.0	39.8	11.3	4506
Burdwan	I	0.7	22.3	12.0	20.8	5.1	34.2	5.8	607
	II	1.3	50.2	12.5	49.5	14.0	56.9	9.1	1132
	III	75.2	45.4	15.5	50.4	17.2	51.7	17.4	64209
	IV	3.9	41.4	13.1	48.4	16.1	51.4	13.2	3316
	V	3.1	35.8	15.4	39.8	15.4	42.8	14.7	2629
	VI	2.9	35.8	14.1	37.5	19.3	46.6	12.6	2464
	VII	12.9	38.8	14.4	43.0	17.2	43.4	14.2	10978
Birbhum	I	1.3	28.2	7.5	38.1	21.8	23.9	24.5	457
	II	1.1	34.2	7.8	45.2	13.1	39.0	9.2	395
	III	67.7	38.0	15.3	45.3	16.9	43.3	15.6	24614
	IV	1.9	37.1	12.2	30.7	17.1	41.2	9.1	676
	V	1.7	32.4	12.0	40.7	14.5	36.4	7.1	607
	VI	6.1	24.8	14.9	30.8	14.4	32.9	16.3	2214
	VII	20.4	34.2	15.5	40.4	16.9	42.0	13.5	7402
West Bengal	I	0.5	24.3	10.0	25.9	14.7	31.2	16.1	5001
	II	1.5	30.7	16.2	36.8	17.8	40.0	15.3	15755
	III	78.1	40.1	16.4	45.5	17.1	46.5	16.1	835139
	IV	2.5	37.0	15.4	42.5	17.4	42.4	15.4	26861
	V	2.7	33.7	16.0	41.9	19.7	44.6	14.1	28374
	VI	1.8	32.9	13.9	39.2	16.5	38.7	16.3	19273
	VII	13.0	36.8	16.6	42.5	17.7	43.7	16.7	139300

Table 5.30 Socio-economic factorwise distribution of students of Government schools, high and low achievers in Bengali and Mathematics (in percentages)

		Govt.	High		Low	
			Beng	Math	Beng	Math
Gender	Boys	72.7	54.2	57.1	55.1	52.9
	Girls	27.3	45.8	42.9	44.9	47.1
Religion	Hindu	97.0	83.7	80.9	73.7	78.7
	Muslim	2.6	15.8	18.5	22.9	19.9
	Christian	0.0	0.3	0.3	0.5	0.3
	Others	0.4	0.2	0.3	0.9	1.1
	Scheduled	11.3	27.6	29.9	40.0	40.6
Caste	Scheduled tribes	1.1	2.9	3.6	7.3	9.5
	Other	87.6	69.5	66.5	52.8	49.8
Fathers' Education	Illiterate	0.0	7.3	8.5	16.4	17.3
	Literate	3.1	20.3	26.0	38.8	37.6
	Up to class X	9.6	32.7	34.1	33.0	32.5
	School final and above	87.3	39.7	31.3	11.8	12.5
Fathers' Occupation	Manual Labourer	0.4	21.3	23.4	36.1	34.9
	Skilled Worker	0.4	4.1	4.5	6.3	6.8
	Service Holder	76.2	35.6	29.0	15.3	15.6
	Petty Trader	10.1	14.1	16.2	12.5	12.1
	Business	10.6	6.2	5.0	3.1	2.8
	Cultivator	0.9	13.2	16.4	18.7	20.0
	Others	1.3	5.4	5.5	8.0	7.7
Mothers' Education	Illiterate	1.7	21.5	23.5	43.1	43.3
	Literate	3.5	26.9	31.7	34.3	34.2
	Upto class X	17.8	28.5	28.4	19.7	18.9
	School final above	77.0	23.1	16.4	2.9	3.7
Per capita Expenditure	Below poverty	11.3	57.7	61.7	76.5	75.8
	Above poverty	88.7	42.3	38.3	23.5	24.2
Attendance	Less than 10 days	0.5	1.1	1.3	6.5	6.4
	10 days-19 days	13.2	27.3	31.1	44.7	44.8
	20 days and above	86.3	71.6	67.6	48.8	48.8
Private tuition	Tutor	38.5	52.6	52.2	42.4	41.9
	Without tutor	61.5	47.4	47.8	57.6	58.1
Tuition Fee	Less than Rs.25	1.1	42.6	45.1	57.9	61.5
	Rs.25-Rs.49	8.0	33.3	36.7	31.6	28.1
	Rs.50-Rs.74	44.8	14.5	12.1	7.3	8.3
	Rs.75-Rs.99	8.0	2.3	1.2	0.7	0.6
	Rs.100 and above	37.9	7.2	4.9	2.6	1.6
Relation	Mother	32.6	20.6	18.5	14.0	14.0
	Father	55.6	59.2	61.6	63.2	61.8
	Siblings	0.0	2.3	1.5	3.1	2.8
	Others	11.8	17.9	18.4	19.7	21.4
Expectation about education	Primary	0.0	2.0	2.8	8.1	8.1
	Secondary	5.3	31.2	35.4	56.4	58.7
	Higher education	94.7	66.8	61.7	35.5	33.2

SUMMARY AND OBSERVATIONS

1. A sample survey was carried out during March 1991 to assess the attainment level of primary school children at the end of class IV. It covered all the 17 districts of West Bengal. From a frame of 44,577 government and government-aided primary and other Bengali medium schools, encompassing all the districts, 17 independent samples of schools (total 882) were drawn by SRSWOR. In cases of selected schools where the number of class IV students was 20 or less, all students were put to assessment. In cases where the number exceeded 20, the determined number of 20 students was chosen randomly. In the process 11,406 class IV students of the state came within the fold of the present survey. Each student was put to test in all 3 scholastic areas i.e. Bengali, Mathematics and Environmental Studies. Moreover detailed information about their background was gathered.
2. School details were collected from heads of selected institutions. And the picture that has emerged, based on student population estimates, is as follows :
 - a) There are more than one million class IV students in West Bengal. There are 5.9 million students reading in primary classes (I to IV). Of them 55% are boys and 45% are girls. Detailed districtwise primary student-population estimates have been furnished which reveal that Midnapur has the highest number of students in primary classes. This is about 0.8 million.
 - b) 'Continuous evaluation' followed by remedial teaching is strategically

important for primary education. 91% of West Bengal schools have claimed that they follow 'continuous evaluation'. This does not fit in with the fact that very few have reached the 'minimum expected score'. It appears that what really take place are examinations, reports of which are sent to the guardians.

c) The practice of giving home-work to students is quite rampant. This should be viewed in the context of the drive against school-bags (Jashpal Committee).

d) About 37% of primary schools in West Bengal have pucca buildings. While Calcutta has 90% such buildings, Coochbehar has only 15%. About 38% of West Bengal primary schools have semi-pucca structures while the rest have places which do not fit into any proper housing category. 80% schools have no proper toilet facilities. This should be viewed in the light of the fact that 45% students are girls. The number of classrooms is also inadequate in most schools. 34% schools have one room for all four classes. 20% and 18% are two and three roomed schools respectively. The remaining 28% have four or more rooms.

e) 53% primary schools have benches and most schools cannot provide blackboards for classes I & II. A basic teaching-aid facility like the blackboard is generally better only in classes III & IV. It has been noted that in cases of shortage of blackboards, they are confined to use by classes III & IV.

f) In 1991, only 2% schools provided free tiffin regularly. In 40% schools tiffins were never served. As for the remaining schools, tiffin was given

occasionally. From school sources it has been gathered that whenever free tiffin was given the attendance was considerably better. In this connection it should be reiterated that attendance and achievement are positively related as has been already shown.

3. Item response theory (IRT) was used for test construction. The two parameter logistic model was adapted for this purpose. IRT provides sample free parameters for the tests. This can be exploited to equate test scores of this study with scores of other tests. Similar comparisons are not possible in the conventional methods of testing. Equating, needless to say, is important for maintaining an uniform standard throughout the country and across time. Moreover item characteristic functions can be used for further educational research.

4. The mean scores for the state as a whole are 38.6, 44 and 44.8 in Bengali, Mathematics and EVS, respectively. Burdwan and Hooghly have scored higher than other districts in Bengali. As for Mathematics, 24-Pgs (N) has performed the best. The EVS results of Calcutta and North 24 Parganas excel others. In contrast Bankura, Purulia and Siliguri have scored consistently low in all 3 subjects. The standard deviations of the scores of the districts (except Hooghly) as well as of the state are almost the same i.e. around 17. In the case of standard errors of means in all 3 subjects the districts show consistency. The range is between 1.4 to 3.7. Statewise the errors stand at 1.2. Lastly the bias which is associated with the procedure of estimations is negligible.

5. Dictation and 'loud' reading have been scored separately. They both

involve psycho-motor activity. In dictation - Hooghly, Calcutta, 24 - Parganas (N & S) have fared better than the rest. On the other hand the performance of Siliguri, Bankura, W. Dinajpur and Malda are poor. Only 28% students of the state can read properly. 16% cannot read at all while 56% can just manage it. This is the situation at the end of class IV. The districtwise variations are little.

6. In Bengali only 26% students of the state have reached the 'minimum expected score' (MES). MES explained before, can be considered as the 'passing score'. In Mathematics 36% have reached it. If both Bengali and Mathematics are combined about 20% students of the state can be said to have reached the 'minimum expected score'. Incidentally Hooghly has scored the highest with 29%. This should be viewed against an earlier survey on Hooghly (ISI, 1986) where it was found that a lower number i.e. 24% students had reached the MES.

7. Government schools have consistently scored very high in all 3 subjects, the mean being more than 75. As for urban and rural students there is hardly any difference in achievement. In class IV, the estimated proportion of boys is 59% and that of girls; 41. But when all the primary classes are taken together (I to IV) the proportion of girls is higher. This indicates a higher rate of drop-outs among girls. As regards achievement there is practically no difference between boys and girls.

8. About 80% students are Hindus by birth. 19% are Muslims. Hindu students have performed better. 98% students have their mother tongue as Bengali. The castewise distribution is as follows : Scheduled Tribes - 7%,

Scheduled Castes - 32.5% and 'other castes' - 60.5%. As expected 'other castes' have performed the best followed by Scheduled Castes and Scheduled Tribes.

9. As regards parental education, 12% fathers are illiterate. 22% of them are those who belong to the category 'School Final and above'. The remaining 66% belong to the category which lies inbetween. In the case of mothers about 29% are illiterate. Only 9% mothers belong to the category 'School Final and above'. It is evident from the results that the achievement of students is directly related to the level of parents' education. In this context it should be kept in mind that mothers' educational level is more conspicuously related to wards' achievement.

10. In the case of occupations 'manual labour' among fathers occur most frequently (about 27.3%). Their wards have scored the lowest. About 24% are service-holders of all kinds. Their wards by way of contrast have scored the highest. The distribution of skilled workers, petty - traders, businessmen and cultivators are about 6%, 15.6%, 4.2% and 15.6% respectively. Their wards' score can be categorised as just average.

11. Among students surveyed the majority i.e. 43.5% come from medium-sized families. It means families composed of 6 to 8 heads. About 36% come from small-sized families. The remaining which is about 20% come from large families which means more than 8 heads. From the results it is clear that students from small-sized families have performed the best.

12. About 66% students of the state come from families which by their per capita expenditure belong to the category, 'below the poverty line'. Ex-

pectedly those who come from families above the poverty line have scored better.

13. Guardians of 85% students have claimed that their wards attend school regularly. And school attendance is directly related to achievement. Engagement in domestic or other work is the chief hindrance. This constitutes to about 48%. Factors like illness, economic handicaps etc. show uniform frequency.

14. In the context of relieving students of school-bags (Jashpal Committee) it is interesting to note that 5 hours or more are spent on home-work. This is the situation for 25% class IV students. It is evident that the quantum of study is directly related to performance in the tests.

At home 18% get help from their mothers. 31% receive help from their fathers while 17% are helped by their siblings. It has come out clear from the survey that mothers' help is the most effective in primary education.

15. About 50% of class IV children have private tutors. It is surprising because some of them come from below the poverty line. Among students who have private tutors, about 23% spend Rs. 15 or less per month for private tuition; 39% spend Rs. 16 to Rs. 25/- and the remaining 37% spend more. The amount spent on private tuition and achievement are positively correlated. But the difference in the achievement between those with private tutors and those without is marginal. About 25% have stated that they suffer in their studies due to economic reasons and / or because of non-availability of books etc.

16. The majority of students in West Bengal have stated that they do not

read any extra-textual material. Only 4.6% have reported to the contrary. Needless to say, reading habit is related to achievement.

17. About 52% guardians want higher education for their wards. Only 3.6% are satisfied with primary education. Such expectations, high or low, are directly related to wards' achievement.

As regards future occupation of their wards most guardians, though they themselves belong to different occupational groups, expect their wards to be service-holders.

18. It appears from the study that the students of government schools come from a socio-economically privileged section of the society. They are very rarely from ST and minority groups and their parents and sponsors are in the main part citizens in service. The entrants to these schools, in short, are from socio-economically advantaged groups well above the poverty-line. Even among the students in any one of these schools the high achievers derive from socio-economically advantaged groups. In Government schools the distribution of students by background factors is uneven in the sense that they represent a particular section of the society. In the case of high-achievers of the state, this unevenness in distribution stands reduced.

19. Although it might seem that the quality of education imparted has not reached the desirable level, the encouraging fact is that 66% of those seeking primary education come from below the poverty line and a considerable portion of these students come from SC and ST groups. Moreover a major part of these students are first-generation learners, and that they have motivation enough to sustain their enthusiasm at least up to the class

IV level. There is no room for pessimism therefore, and attention should be focussed in improving the quality of teaching in the class room. In short, the drive for seeking education is unmistakable, and official efforts should be directed at ensuring that this drive is not frustrated. Such official effort, among other things, would make sure that the dropout level would be controlled and bring primary education closer to the desired social goal. From what has been said before it should be clear that the teachers' role is vital.

Appendix - A

Estimation Procedures

Sampling design has been discussed earlier and on that basis estimation formulae are given below (Kish, 1965).

M_h = number of schools in the district h

m_h = number of schools selected from district h

x_{hij} = score of student j of selected school i of district h

$\sum_j x_{hij} = x_{hi}$ = sum of scores of selected school i of district h

$x_h = \sum_{i=1}^{m_h} x_{hi}$ = sum of scores of m_h selected schools of district h

n_{hi} = number of students in the selected school i of district h

$\sum_i n_{hi} = n_h$ = number of students of m_h selected schools of district h

$x'_h = (x_h/m_h)M_n$ = an estimate of the sum of scores of district h

$n'_h = (n_h/m_h)M_n$ = an estimate of number of students in district h .

The mean score of district h is given by

$$\bar{x}_h = x_h/n_h = x'_h/n'_h \quad \dots(1)$$

The variance of scores of district h is given by

$$s_h^2 = \frac{\sum_i \sum_j x_{hij}^2}{n_h} - \bar{x}_h^2 \quad \dots(2)$$

Variance of $\bar{x}_h$ is given by

$$V(\bar{x}_h) = \frac{(1 - f_h)}{n_h} \times m_h [s^2(\bar{x}_h) + \bar{x}_h^2 s^2(n_h) - 2\bar{x}_h \text{Cov}(x_h, n_h)] \quad (3)$$

where $f_h = m_h/M_n$

$s^2(x_h) = \text{Variance of } x_h$

$s^2(n_h) = \text{Variance of } n_h$

$Cov(x_h, n_h) = \text{Covariance of } x_h \text{ and } n_h$

By expanding the terms of right hand side of (3) we get

$$\frac{(1-f_h)m_h}{(m_h-1)n_h^2} \times [(\sum x_{hi}^2 - x_h^2/m_h) + \bar{x}_h^2(\sum n_{hi}^2 - n_h^2/m_h) - 2\bar{x}_h(\sum n_{hi}x_{hi} - n_h x_h/m_h)] \quad \dots (4)$$

Bias of ratio $\bar{x}_h$ is given by

$$B(\bar{x}_h) = \frac{(1-f_h)}{n_h} \times [\bar{x}_h s^2(n_h) - Cov(x_h, n_h)] \quad \dots (5)$$

Mean score $\bar{x}$ for West Bengal is given by

$$\bar{x} = \sum_h W_h \bar{x}_h$$

where W_h is the corresponding proportionate share of district h . Population variance of test score is given by

$$s^2 = \sum x_h^{(2)} / \sum n'_h - \bar{x}^2 \quad \dots (6)$$

$$\text{where } x_h^{(2)} = \frac{\sum_i \sum_j x_{hij}^2}{m_h} \times M_h \quad \dots (7)$$

Variance of $\bar{x}$ for West Bengal is given by

$$V(\bar{x}) = (1/n^2) \times [s^2(x_h) + \bar{x}^2 \sum s^2(n_h) - 2\bar{x} \sum Cov(x_h, n_h)] \quad \dots (8)$$

$$\text{where } n = \sum_h n_h$$

Appendix - B

Two parameter logistic model

The major aim of testing is to find out a suitable location of an examinee in a psychologically meaningful continuum. This is considered to indicate quantitatively the estimated standing of an examinee. A test is used as an instrument of measurement for this purpose. It is composed of a number of smaller units called items. Here a conflicting situation arises. If items are relatively easy a group of examinees appears bright, which is not necessarily true. On the other hand if items are difficult a group of examinees might appear ill-equipped. This again is not necessarily true. Performance of a group depends largely on difficulties of items. In conventional testing methods difficulty of an item is defined in terms of proportion of correct responses. The major problem is to find out location parameters of examinees (objects) as well as items (instruments) when both are unknown. In this conflicting situation latent trait models provide different sets of parameters for items (and also of tests) which remain approximately invariant from one group of examinees to another. There are other advantages of latent trait models over conventional testing. Now-a-days latent trait models are covered by "item response theory".

According to this theory, the behaviour of an examinee which is observed from responses to items, is known as the manifest variable. Besides manifest variables (observed) the theory assumes the existence of a mental

faculty called trait. Items are related to this latent trait. Further, relationship between any pair of items is only because items are related to the common latent trait. Achievement test scores reported in this study are the measurement in the domain of the above mentioned latent trait. Two parameter logistic model is one of such models related with item response theory. The two parameter logistic model has been chosen because it is suitable for the present purpose.

Model : Relationship between item and trait is very important in the above mentioned theory. Regression of item i on the latent trait x is expressed by item characteristic function $P_i(x)$.

Response to an item i is either correct or not correct. Item score U_i is a binary variable; when correct it is 1, otherwise it is 0. Item characteristic function is defined as the probability of giving the correct answer to an item i by an individual with ability / achievement x ,

$$P_i(x) = P(u_i = 1 | x) \quad \dots(B1)$$

This relationship is expressed by a curve known as an Item Characteristic Curve (ICC).

Item characteristic function (ICF) for two parameters logistic model of an item i is given by

$$P_i(x) = [1 + e^{-1.7a_i(x-b_i)}]^{-1}. \quad \dots(B2)$$

Two parameters a_i and b_i determine the curve. Parameter a_i determines the slope of the curve and is known as the discriminating parameter. It

indicates the power of an item to distinguish between high and low scores. The other parameter b_i is known as "difficulty parameter" and indicates the degree of difficulty of an item. The parameter b_i is also known as location parameter. For a relatively difficult item the curve is located towards the positive side of x and for a relatively easy item the location of the curve shifts towards the negative side of x axis.

It is obvious that the value of $p_i(x)$ must be between 0 and 1, i.e. $0 \leq p_i(x) \leq 1$ for all x . In the logistic model the range of x is $-\alpha$ to $+\alpha$. The latent variable space (x) is one-dimensional. Further $p_i(x)$ should be monotonically non-decreasing with x .

The very important assumption of the latent trait model is the 'axiom of local independence'. Local independence means that, within any group of examinees, all having the same score x_c , the joint distribution of item scores (u_i, u_j) are related to each other only through the latent variable x .

If a test is comprised of n items, it may be stated formally that items $i = 1, 2, \dots, n$ for any fixed value of x_c , the joint distribution of item scores u_{i*} would equal to the product of the marginal distributions of different items.

It may be recalled that each examinee gives answer to n items which means that for each individual there is a n -component binary vector to record responses.

For binary items, the assumption of local independence can be expressed

as

$$\begin{aligned}
 Prob(U_{1i} = u_1, u_{2i} = u_2, \dots, U_{ni} = u_n | x) \\
 &= \prod_{i=1}^n Prob(U_i = u_i | x) \dots (B3) \\
 &= \prod_{i=1}^n p_i(x) u_i q_i(x)^{1-u_i} \dots (B4)
 \end{aligned}$$

where $q_i(x) = 1 - p_i(x)$ and each item score is either 1 or 0.

If we denote a pattern of item response vector as $v = (u_1, u_2, \dots, u_n)$ then the probability distribution function of a pattern of responses by logistic model would be

$$Prob(V = v | x) = \left[\prod_{i=1}^n q_i(x) \right] \left[exp(x1.7 \sum_{i=1}^n a_i u_i) \right] \left[exp(-1.7 \sum_{i=1}^n a_i b_i u_i) \right] \dots (B5)$$

It has been already stated that item parameters are approximately invariant under the model but parameters change if unit of measurement is changed.

It is to be noted that item characteristic function should not be confused with the well known cumulative distribution function of probability theory though ICF has properties similar to probability distribution function.

The two parameter logistic model has been chosen because it allows discriminating parameters to vary, unlike the Rasch model. Considerable variations among item test correlation (biserial) were evident from initial computations. There was no multiple choice item in Mathematics and very few items were of the multiple choice type in Bengali. So a three parameter model was avoided.

Normal ogive model is a natural choice for test scores and the logistic

model is a very close approximate to the normal ogive but is mathematically both simple and elegant.

If $\phi(Z)$ is the normal distribution function and $\tau(Z)$ is the logistic distribution function, it has been shown (Haley, 1952) that

$$|\phi(Z) - \tau(1.7Z)| < 0.01 \text{ for all } Z. \quad \dots (B6)$$

Simple algebraic solutions for estimation of item parameters are not available. A computer software was developed earlier by S.K. Mitra (one of the authors)¹ for computing necessary numerical solutions following Lord (1968) and Berkson (1957). This program was used to estimate the item parameters as well as student parameters. According to the model, estimated test scores of an examinee j is a weighted sum of item scores. This is given by

$$\hat{x}_j = \sum_{i=1}^n a_i u_{ij} \quad \dots (B7)$$

where u_{ij} is the item score of an individual j in item i and n is the number of items in the test.

Confidence limit of estimated achievement level x 's is computed by the following formula

$$\hat{x} \pm \phi^{-1}(1 - \alpha) / [1.7^2 \sum_{i=1}^n a_i^2 p_i(\hat{x}) \{1 - P_i(\hat{x})\}]^{1/2} \quad \dots (B8)$$

which represents a maximum likelihood confidence limit estimator with approximate (asymptotic) confidence coefficient $1 - \alpha$. Figures (B 4 - B 5 -

¹See Statistical analysis of multiple choice test items. Fifty-third Annual Report, 1984-85 (p. 31). Indian Statistical Institute.

B 6) show the 95% confidence intervals for Bengali, Mathematics and EVS.

ICCs for Bengali, Mathematics and EVS are shown in figs. (B 1. * - B 2.* - B 3.*).

It is to be noted that for easy interpretation of estimated test scores $\hat{x}_j$ the score of examinee j has been transformed into x_j in such a way that the resultant test score x_j can be interpreted approximately as 'out of 100'. All results given in the tables and figures are according to the scale of x_j .

There are a number of advantages in using IRT as against conventional testing. In general, a set of scores of one test cannot be equated (compared) with a set of scores of another test when target groups are different.

Sample free item parameters are the proper answer to the problem of equating test scores across groups and time. It should therefore help in maintaining uniformity in assessment throughout the country. Needless to say item characteristic functions are pedagogically very meaningful.

Note on ICCs :

A number of selected ICCs for Bengali, Mathematics and EVS are presented in figures B 1.0 -, B 2.0 - and B 3.0 - . The items have been indicated after the figures. Each figure shows - ICCs, one for each item.

The x -axis in the figure represents scores on the achievement / skill / ability continuum; and the y -axis, the probability of correct responses to any item.

Direct interpretation of ICC is regression of an item on the latent trait x (achievement score). ICCs are useful in a number of ways. It may be helpful to relate a particular cognitive task (item) with the domain of knowledge (x). It may be used to improve the planning of teaching-learning process and organising the learning materials (Embretson). In general it may be stated that latent trait models can be applied to research in wider fields of cognitive psychology.

It may be mentioned that the axiom of local independence permits computation of ICCs for joint distributions of items $[P_{ij}(x) = \text{Prob} [u_i, u_j | x]$. They are significant from the pedagogical point of view. But these have not been incorporated as these are not immediately related to the present purpose.

1. Bengali Test Items (Fig. B 1.0 - Fig. B 1.7)

The probability of giving correct response to item 1 (Fig. B 1.0) by a student with zero score is about 0.17 and by a student with score 100, is about 0.85. All items in Fig. B 1.0 are related to the task of identifying the constituent consonants in conjunct consonants. Item 5 seems to be consistently difficult through out the range (0 to 100) than other items (item 1 to item 4). On the other hand item 3 appears to be the least difficult all through except in cases when the score is less than 10.

In fig. B 1.1, the item seems very easy. Here the student has been asked to give a word synonymous to 'boat'.

Items 12 and 14 (Fig. B 1.2) intersect each other at around the score 35. This means that item 12 is relatively easy for students with low ability (less than 35) than item 14. But for students with higher ability, item 12 appears to be more difficult than item 14. Items 16 to 20 (Fig. B 1.3) appear to be of similar nature, except item 17. Again items 41 to 50 seem similar in respect to the ICCs.

Items 63 and 65 are related to achievement very closely. The same can be said in the case of the pair of items from 67 to 69. These items involve the task of writing simple sentences.

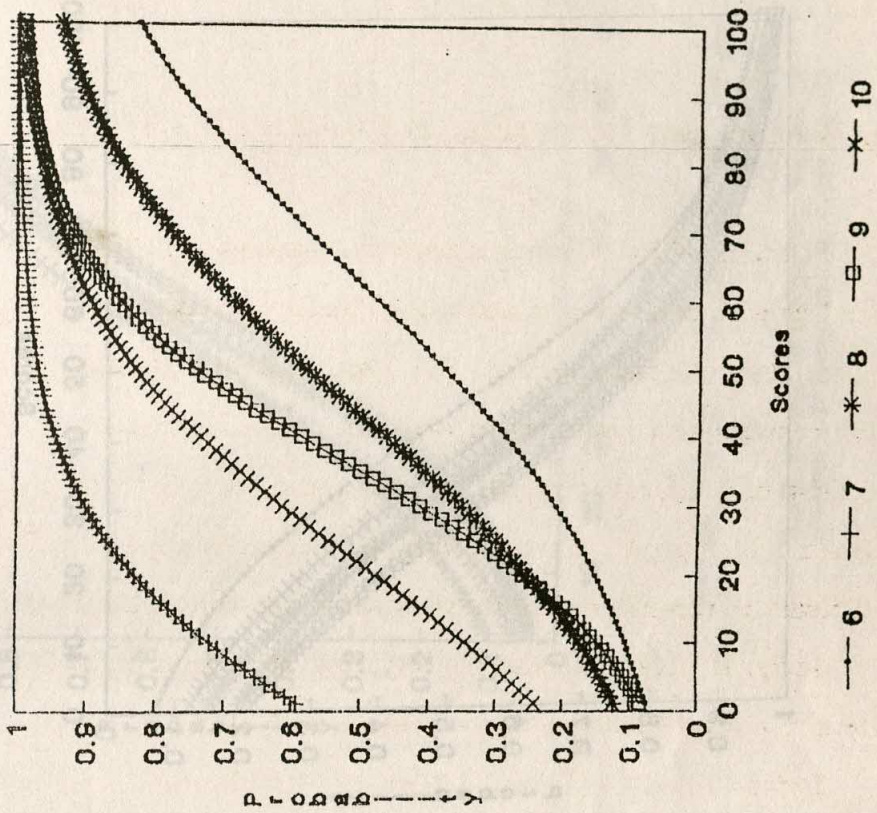


Fig.B1.1 Item characteristic curves of Bengali test items (No. 6, 7, 8, 9, 10)

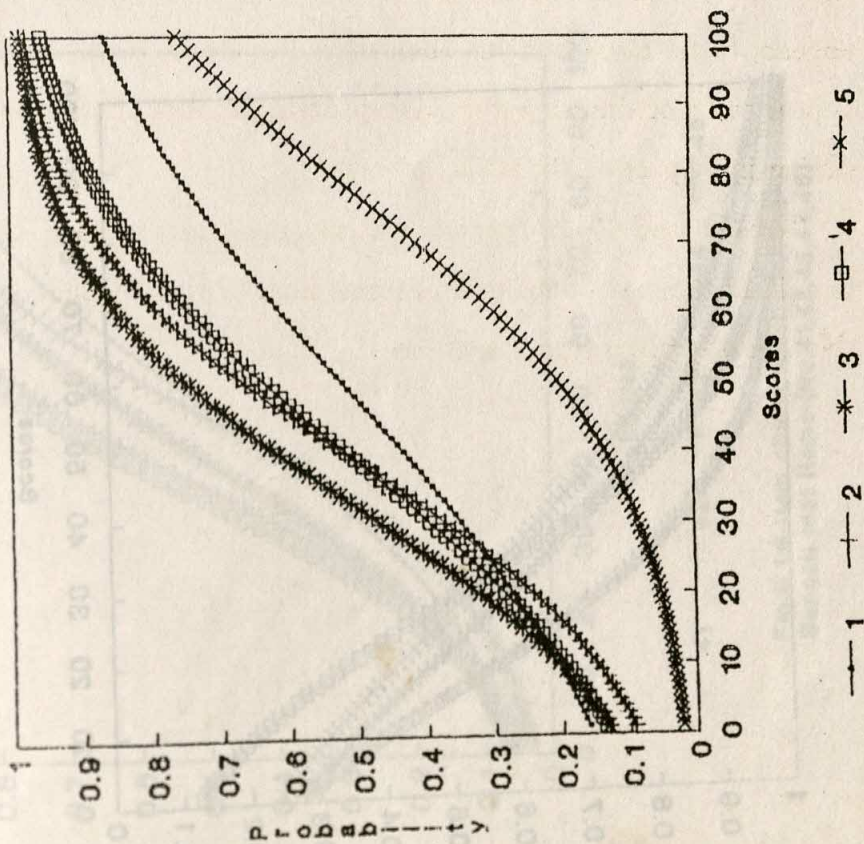


Fig.B1.0 Item characteristic curves of Bengali test items (No. 1, 2, 3, 4, 5)

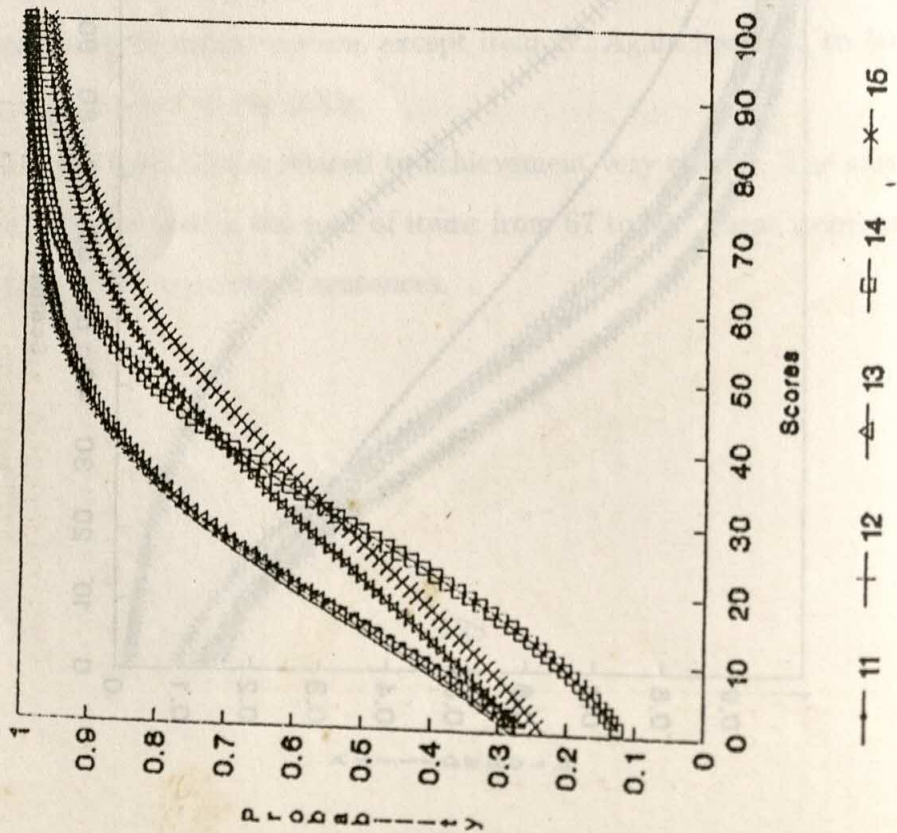


Fig.B1.2 Item characteristic curves of Bengali test items (No.11,12,13,14,15)

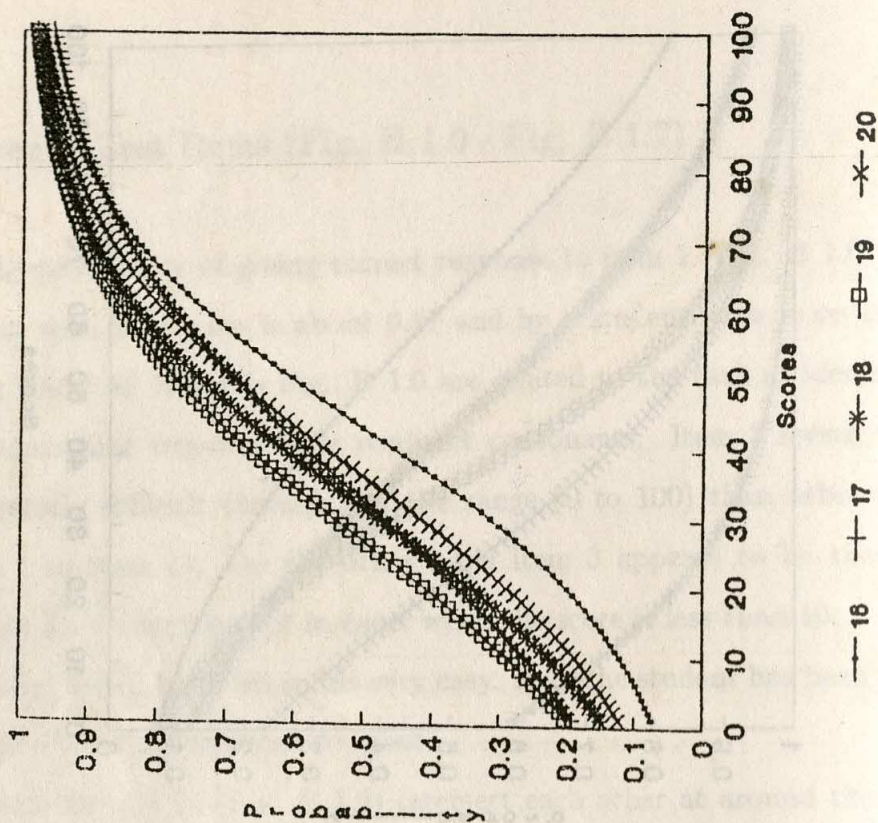


Fig.B1.3 Item characteristic curves of Bengali test items (No.16,17,18,19,20)

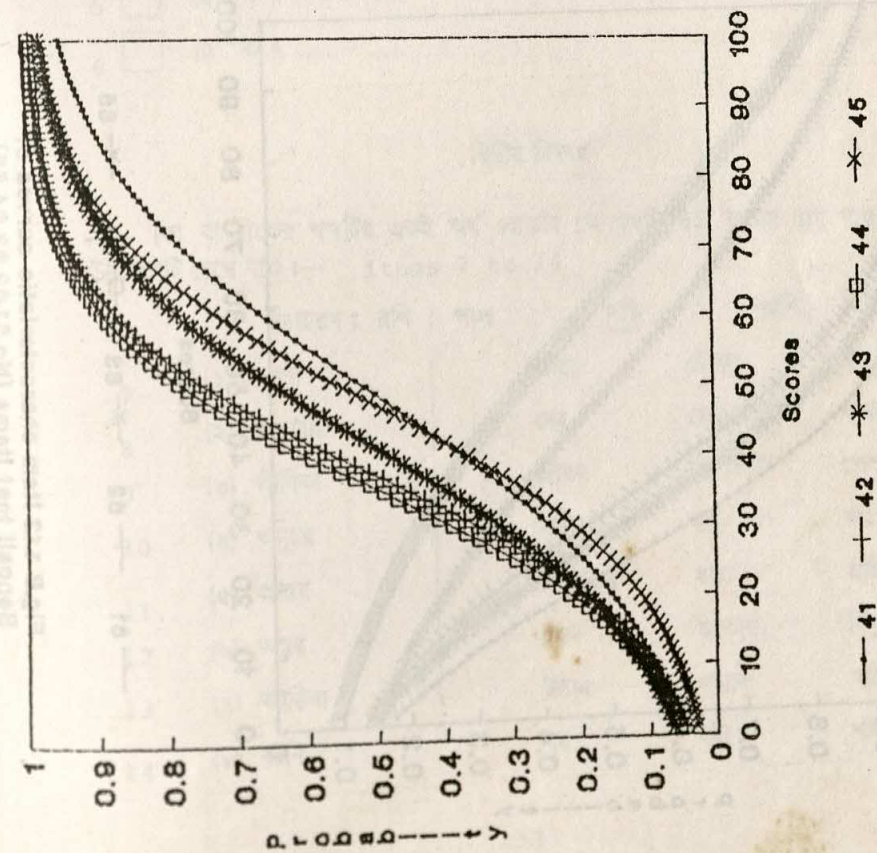


Fig.B 1.8 Item characteristic curves of Bengali test items (No.41,42,43,44,45)

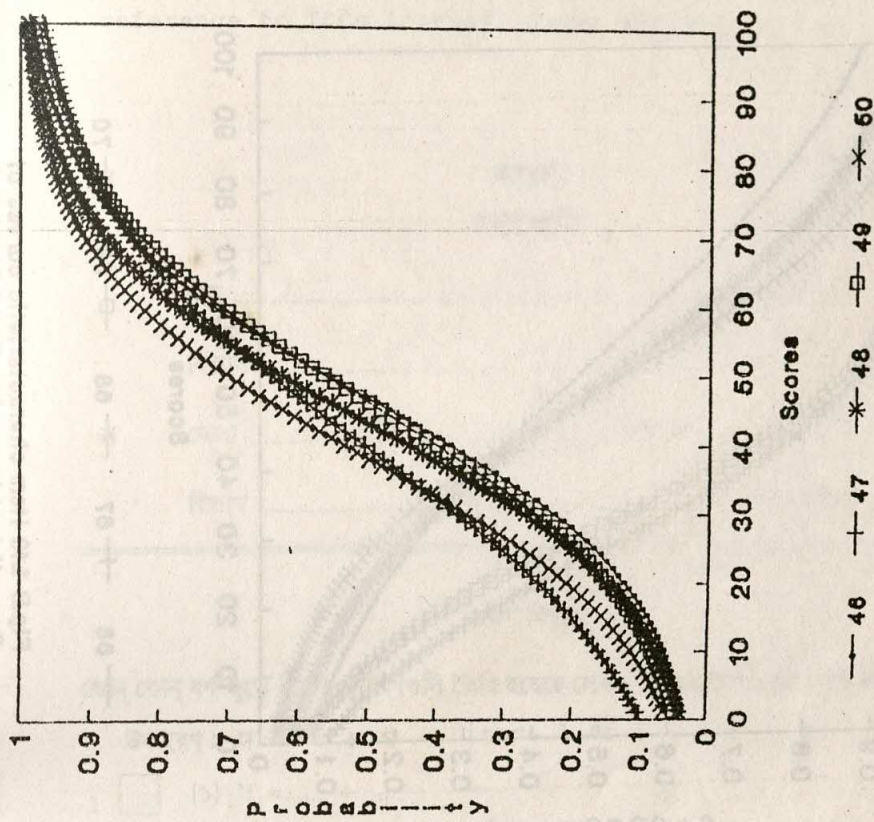


Fig.B 1.9 Item characteristic curves of Bengali test items (No.46,47,48,49,50)

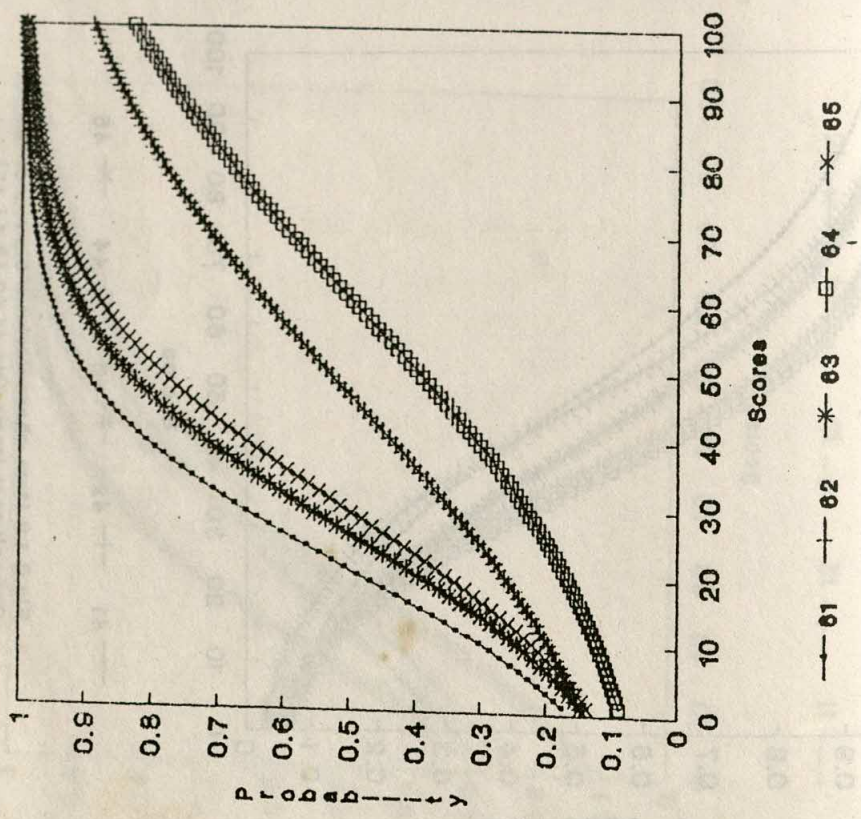


Fig.B 1.12 Item characteristic curves of Bengali test items (No.81,82,83,84,85)

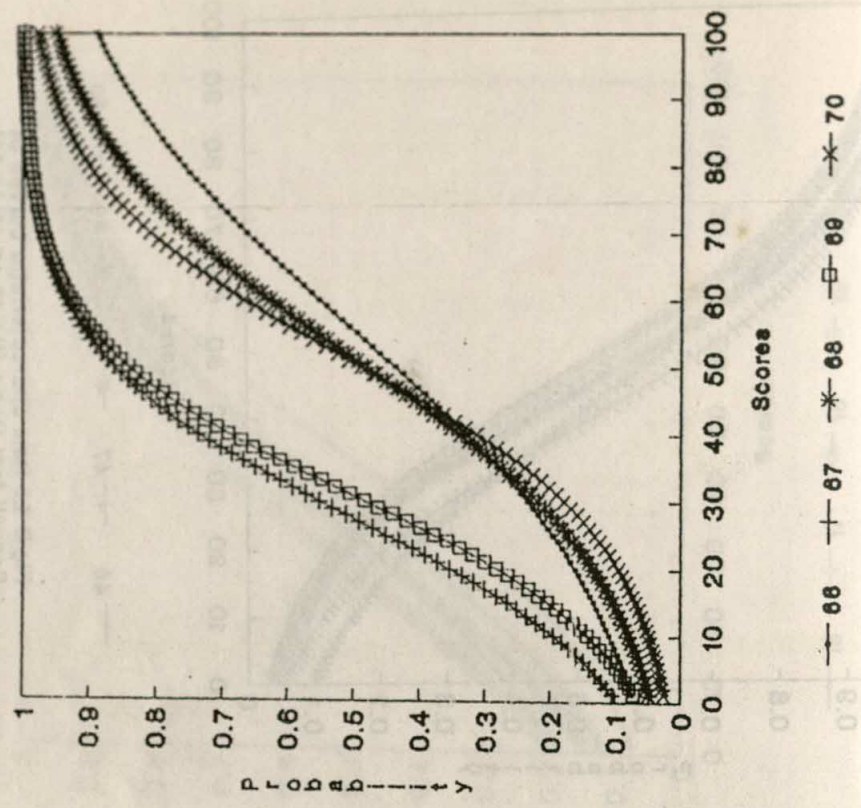


Fig.B 1.13 Item characteristic curves of Bengali test items (No.66,67,68,69,70)

বাংলা
(চতুর্থ শ্রেণী)

নাম

বিদ্যালয়

জেলা রোল নং

বিভাগ তারিখ বালক/বালিকা

প্রথম বিভাগ

কোন কোন বর্ণ জুড়ে নীচের যুক্তবর্ণগুলি তৈরি হয়েছে লেখ। প্রথমে উদাহরণটি দেখে নাও :—

উদাহরণ : ঙ = ঙ + গ items 1 to 6

- 1 ☐ (১) স্থ = ... + ...
- 2 ☐ (২) ঙ = ... + ...
- 3 ☐ (৩) ত্ত = ... + ...
- 4 ☐ (৪) ঙ = ... + ...
- 5 ☐ (৫) ঙ = ... + ...
- 6 ☐ (৬) ঙ = ... + ...



দ্বিতীয় বিভাগ

(ক) বাঁ দিকের শব্দটির একই অর্থ বোঝায় যে শব্দটি তার তলায় দাগ দাও। প্রথমে -
উদাহরণটি দেখে নাও :— items 7 to 14

উদাহরণ : রশি পাল		দড়ি	রাশি
7	(১) তরণী	মেয়ে	নৌকা
8	(২) কলেবর	দেহ	মোটাসোটা
9	(৩) জীবিকা	জীবন	টাকাকড়ি
10	(৪) অনুচর	সঙ্গী	বন্ধু
11	(৫) প্রান্তর	তেপান্তর	মাঠ
12	(৬) অম্বর	মেঘ	আকাশ
13	(৭) আঙিনা	উঠান	বাগান
14	(৮) ধ্বনি	ধন	ধনী

(খ) বাঁ দিকের শব্দটির বিপরীত শব্দের তলায় দাগ দাও। প্রথমে উদাহরণটি দেখে
নাও :— items 15 to 21

উদাহরণ : পুণ্য পাপ		তাপ	অন্যায়	
15	(১) বদ	বদন	মহৎ	ভালো
16	(২) কোমল	কঠিন	নরম	গরম
17	(৩) বলিষ্ঠ	শান্ত	অসুস্থ	দুর্বল
18	(৪) দ্রুত	নীচু	ধীর	চঞ্চল
19	(৫) ইতর	ভদ্র	চালাক	অসৎ
20	(৬) নিষ্ঠুর	দয়ালু	রুক্ষ	নৃশংস
	(৭) প্রশংসা	গর্ব	নিন্দা	সংশয়

(গ) নীচের বাক্যগুলির শূন্যস্থানে যে শব্দ বসবে সেটির তলায় দাগ দাও। প্রথমে
উদাহরণটি দেখে নাও :—

উদাহরণ : লোকটি একেবারেই , তাই কিছুই শুনতে পেল না।
অধীর বধির উন্মাদ

- (১) পড়াশোনায় ছেলেটির একটুও ছিল না।
সন্দেহ শৈথিল্য কর্তব্য
- (২) বিশাল হিমালয়ের সামনে এসে সকলেই হয়।
বিস্মিত ভূমিসাৎ স্পন্দিত
- (৩) লোকটি বাংলা বলতে পারে, ... লিখতে পারে না।
আর তবু কিন্তু
- (৪) খেলার মাঠে সেদিন তিন শ' বোঝা জড়ো হয়েছিল।
ক্রমাগত অন্তত যথাসাধ্য
- (৫) নদীর জল অবশেষে হয়ে যায় সাগরের জলে।
স্তব্ধ স্থির লীন
- (৬) বিনা দোষে আমাকে ভোগ করতে হয়েছিল।
শঙ্কা লাঞ্ছনা গৌরব
- (৭) পথ খুব পিছল ছিল, ... যেতে গিয়ে সে পড়ে গেল।
তবু তাই কিন্তু
- (৮) তোমাকে চিৎকার করে ডাকলাম, ... তুমি শুনতে পেলো না।
তবু তাই এবং

নীচের প্রশ্নগুলির উত্তর এক একটি বাক্যে দাও :—

(ক) “এই বোণার দেশে একদিন আমি ডুডুমার ডাক শুনতে পেলাম।”

- ☐ (১) বোণার দেশ কোথায় ?
- ☐ (২) ‘আমি’ কে ?
- ☐ (৩) ‘ডুডুমা’ কি ?

(খ) “নিজে চোখে না দেখে কখনো কিছু বিশ্বাস করবি নে—এই বলে রাখলুম।”

- ☐ (১) এটি কোন্ লেখার অংশ ?
- ☐ (২) কথাগুলি কে বলেছিল ?
- ☐ (৩) পরবর্তী জীবনে তার কী নাম হয়েছিল ?

(গ) “আঁধার হল মাদার গাছের তলা,
কালি হয়ে এল দিঘির জল”

- ☐ (১) এটি কোন্ কবিতার অংশ ?
- ☐ (২) কবির নাম কি ?
- ☐ (৩) এর ঠিক পরের পংক্তি দু’টি লেখ :—

.....

.....

চতুর্থ বিভাগ

(ক) নীচের অংশটি মন দিয়ে পড় এবং প্রশ্নগুলির ঠিক উত্তরটির তলায় দাগ দাও :—

“শকুন্তলার আপনার মা-বাপ ছিল না; কিন্তু যারা পর ছিল, তারা তার আপনার হল। তাত কখন তার আপনার, মা—গৌতমী তার আপনার, ঋষি বালকেরা তার আপনার ভাইয়ের মতো। আর ছিল তার বড়ো আপনার দুই প্রিয়সখী অনসূয়া, প্রিয়ংবদা; আর ছিল একটি মা-হারা হরিণ-শিশু—বড়োই ছোটো, বড়োই চঞ্চল। তিন সখীর আজকাল অনেক কাজ—ঘরের কাজ, অতিথি সেবার কাজ, সকালে-সন্ধ্যায় গাছে জল দেবার কাজ। শকুন্তলার দুই সখীর আর একটি কাজ ছিল—তারা প্রতিদিন মাধবীলতায় জল দিত।”

(১) গৌতমী কে ?

(ক) শকুন্তলার সখী।

(খ) শকুন্তলার আপনার মায়ের মতো।

(গ) শকুন্তলার আপনার মা।

(২) শকুন্তলার দুই প্রিয়সখীর নাম কি ?

(ক) গৌতমী ও প্রিয়ংবদা ।

(খ) অনসূয়া ও গৌতমী ।

(গ) অনসূয়া ও প্রিয়ংবদা ।

41 (৩) প্রতিদিন মাধবীলতায় জল দেবার কাজ ছিল

(ক) অনসূয়া ও প্রিয়ংবদার ।

(খ) শকুন্তলা, অনসূয়া ও প্রিয়ংবদার ।

(গ) শকুন্তলা ও অনসূয়ার ।

(খ) নীচের বাক্যগুলি মন দিয়ে পড় । বাক্যগুলি এলোমেলো ভাবে দেওয়া হয়েছে । এগুলিকে ঠিকমতো পরপর সাজালে একটা গল্প পাবে । যে বাক্যটি গল্পের প্রথম বাক্য হবে তার পাশে ১ লেখা হয়েছে । এখন, তুমি বল কোন্ বাক্যটি এর পরে আসবে; সেটির পাশে লেখ ২ । তার পর যেটি আসবে সেটির পাশে ৩ লেখ । তার পরে যেটি আসবে সেটির পাশে লেখ ৪ । আর, গল্পের সবশেষে যে বাক্যটি হবে তার পাশে লেখ ৫ ।

গল্প

- 42 এত করেও মেয়ে সারলো না, রাজার মনে তাই সুখ ছিল না । []
- 43 কত কবিরাজ এল, কত ওষুধ পড়ল, সে কিন্তু দিন দিনই রোগা হয়ে যেতে লাগল । []
- 44 জন্ম থেকেই মেয়েটি অসুখে ভুগতো । []
- এক যে ছিল রাজা, আর তার ছিল ছোট্ট এক মেয়ে । [১]
- 45 একটা বেলাও সে ভাল থাকত না । []

পঞ্চম বিভাগ

(ক) বাঁ দিকের শব্দগুলির কোন্টি কোন্ পদ তার নীচে দাগ দাও । প্রথমে উদাহরণটি দেখে নাও :—

উদাহরণ : বলেছি | সর্বনাম ক্রিয়া বিশেষ্য

46	(১) রাস্তা	বিশেষণ	সর্বনাম	বিশেষ্য
47	(২) সে	বিশেষ্য	সর্বনাম	বিশেষণ
48	(৩) এবং	অব্যয়	বিশেষণ	ক্রিয়া
49	(৪) সুন্দর	অব্যয়	বিশেষ্য	বিশেষণ
50	(৫) পড়েছিল	ক্রিয়া	সর্বনাম	বিশেষ্য

(খ) (১) নীচের বাক্যে 'সর্বনাম' পদের তলায় দাগ দাও :—

তোমাদের খেলা দেখতে অনেক লোক এসেছিল।

(২) নীচের বাক্যে 'বিশেষণ' পদের তলায় দাগ দাও :—

গাছে সুন্দর ফুল ফুটেছে।

(৩) নীচের বাক্যে 'ক্রিয়া' পদের তলায় দাগ দাও :—

তিনি অনেক গল্প বলতেন।

(৪) নীচের বাক্যে 'বিশেষ্য' পদের তলায় দাগ দাও :—

পাল উঠল ফুলে।

(৫) নীচের বাক্যে 'অব্যয়' পদের তলায় দাগ দাও :—

শক্তিবাবু আর আজিম, বাব খুঁজতে নামলেন।

(গ) শব্দগুলি ঠিকমত সাজিয়ে বাক্য তৈরি কর। প্রথমে উদাহরণটি দেখে নাও :—

উদাহরণ : গল্প এটি কবির একজন

এটি 'একজন কবির গল্প'।

☐ (১) উঠছে থেকে বাষ্প জল

☐ (২) অত্যন্ত অবস্থা দরিদ্র তার

☐ (৩) দিয়েছে বন্যা আমাদের দেখা নদীতে গ্রামের

☐ (৪) হল মুচির তো মজাই বেশ

☐ (৫) এই ক'রে নমস্কার বলে চলে সর্দার গেল

ষষ্ঠ বিভাগ

61, 62 (ক) পূর্ণ বাক্যে উত্তর দাও :—

☐ (১) এখন তুমি কি করছো ?

63, 64 ☐ (২) আজ স্কুল ছুটির পরে তুমি কি করবে ?

65, 66 ☐ (৩) গত রবিবারে তুমি কি করেছিলে ?

□ (খ) বন্ধুকে চিঠি লিখতে গেলে যে যে অংশগুলি থাকে, সেগুলি নীচে এলোমেলো ভাবে দেওয়া আছে। তুমি সেগুলি ঠিকমত সাজিয়ে একটি চিঠির আকারে নীচে লেখো :—

তোমার চিঠি পেয়েছি। দু'জনে মিলে খুব বেড়াবো। ইতি রহিম। তুমি পরীক্ষায় ভাল করেছো জেনে খুশি হলাম। তুমি আমার ভালবাসা নিও। ৬ই মার্চ, ১৯৯১।
শ্রীঅনিলকুমার বসু, পোঃ ও গ্রাম—নৈটী, জেলা—হুগলী। আমাদের পরীক্ষার ফল এখনো বেরোয়নি। ১৭, বোস পাড়া লেন, কলিকাতা-৭০০ ০০৩। এবার ছুটিতে তোমাদের গ্রামে যাবো। প্রিয় অনিল,

each sentence covers two items

67,68



(গ) নীচের ছবিটি দেখে চারটি পূর্ণ বাক্যে ছবির বিষয়ে একটি বর্ণনা লেখো।

69,70



সপ্তম বিভাগ

(খ) প্রতিলিখন : বাক্য

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

Evaluation of attainment level of primary of students at the end of Class IV (1990-91) in West Bengal: a collaborative project between Psychometric Research and Service Unit, Indian Statistical Institute, Calcutta and State Council of Educational Research and Training, West Bengal.

2. Mathematics Test Items (Fig. B 2.0 - Fig. B 2.9)

All test items from 1 to 8 are related to competencies involving use of numbers. Items 3, 7 and 8 have appeared to most as difficult items in this group. Among the items 7, 8 and 9, item 9 seems to have been the least difficult. This requires the recognition of the greatest number out of a set of numbers. Items 10 to 16 are all related to arithmetical operations - addition, subtraction etc. They vary in difficulty as numbers become higher.

Item 17 involves the task of multiplication. This appears to be easy in comparison to other items (18,19,20) for students with low skill. But it turns out to be more difficult than 18 and 19 as the level of skill increases (more than 30 approx.). Item 20 is a difficult item even for a student who has reached the MES. The probability of correct response is only about 0.2. It is interesting to note that items 17 and 20 are consistently difficult, even for high scoring students (90 or more). Items 21 and 24 closely resemble each other.

The slope of curves for items 30 and 31 are relatively steep, i.e., in the range of 35 to 70, and discriminating parameters of these items are of considerable magnitude. On the other hand items 29 and 32 are less discriminatory. Items 49,50,51 are all related to arithmetical problems and are more difficult than item 52 which concerns identification of geometric figures.

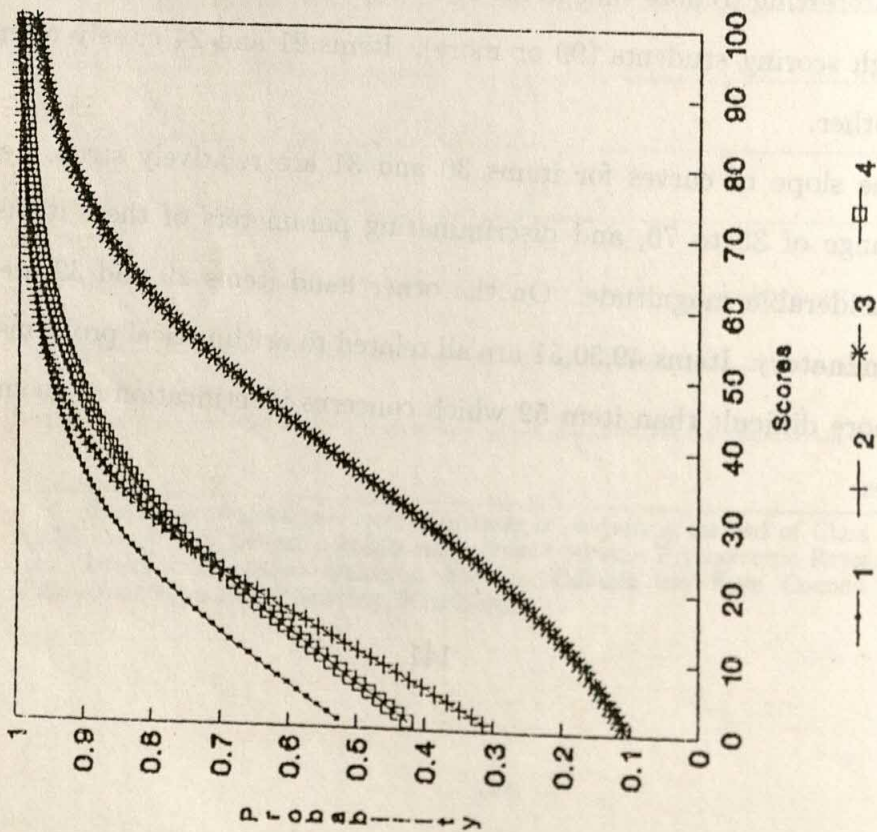


Fig.B 2.0 Item characteristic curves of Mathematics test items (No. 1, 2, 3, 4)

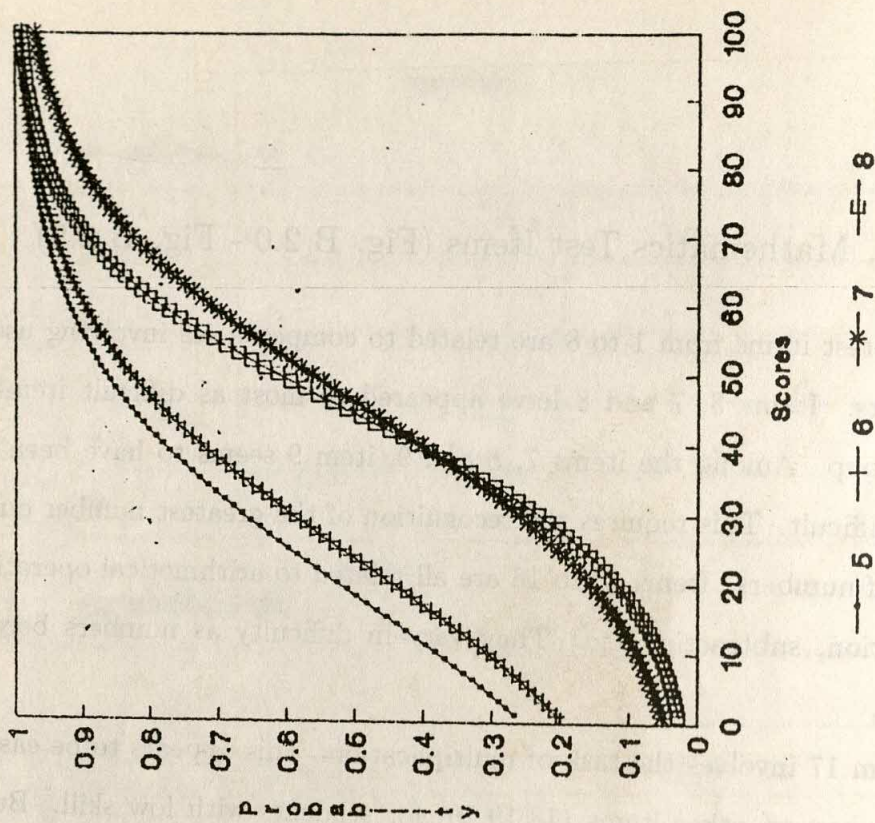


Fig.B 2.1 Item characteristic curves of Mathematics test items (No. 5, 6, 7, 8)

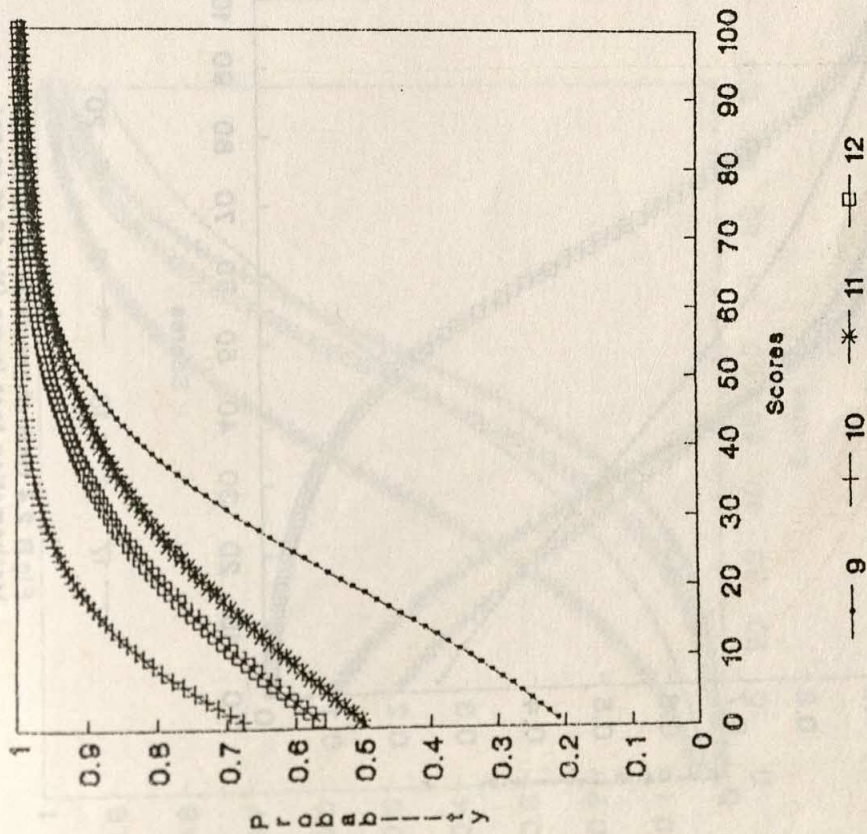


Fig.B 2.2 Item characteristic curves of Mathematics test items (No. 9,10,11,12)

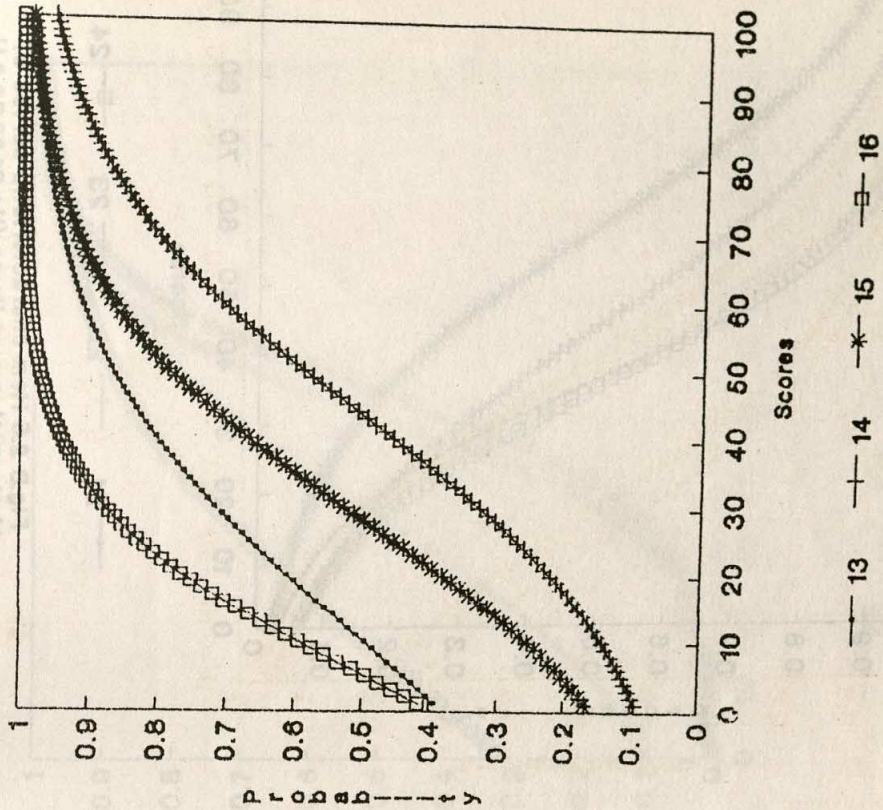


Fig.B 2.3 Item characteristic curves of Mathematics test items (No.13,14,15,16)

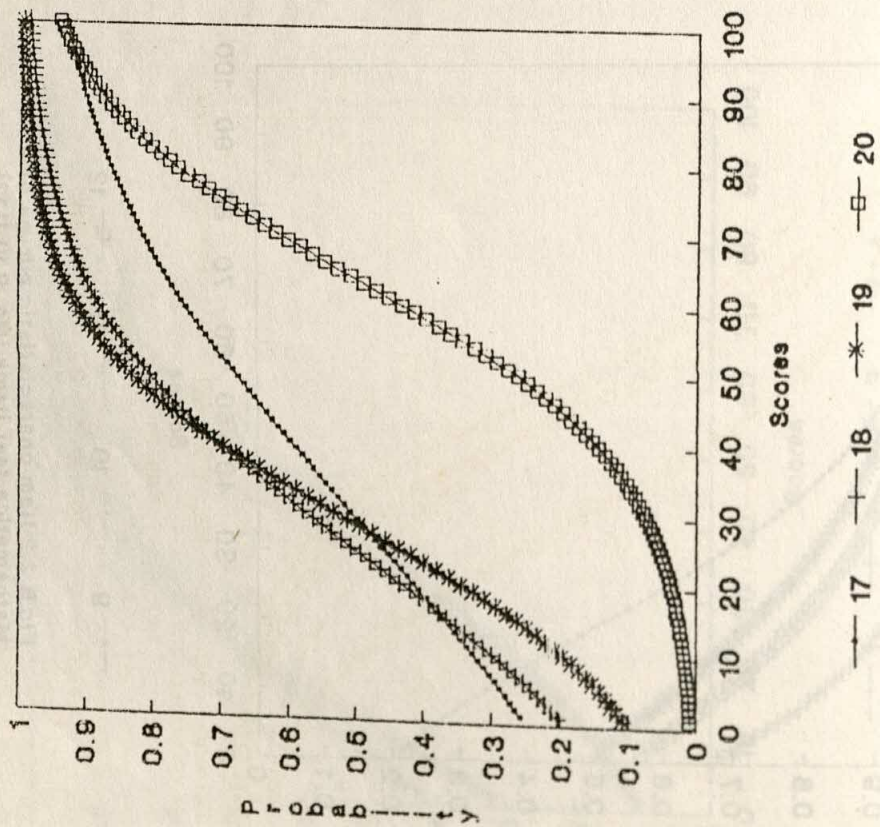


Fig.B 2.4 Item characteristic curves of Mathematics test items (No.17,18,19,20)

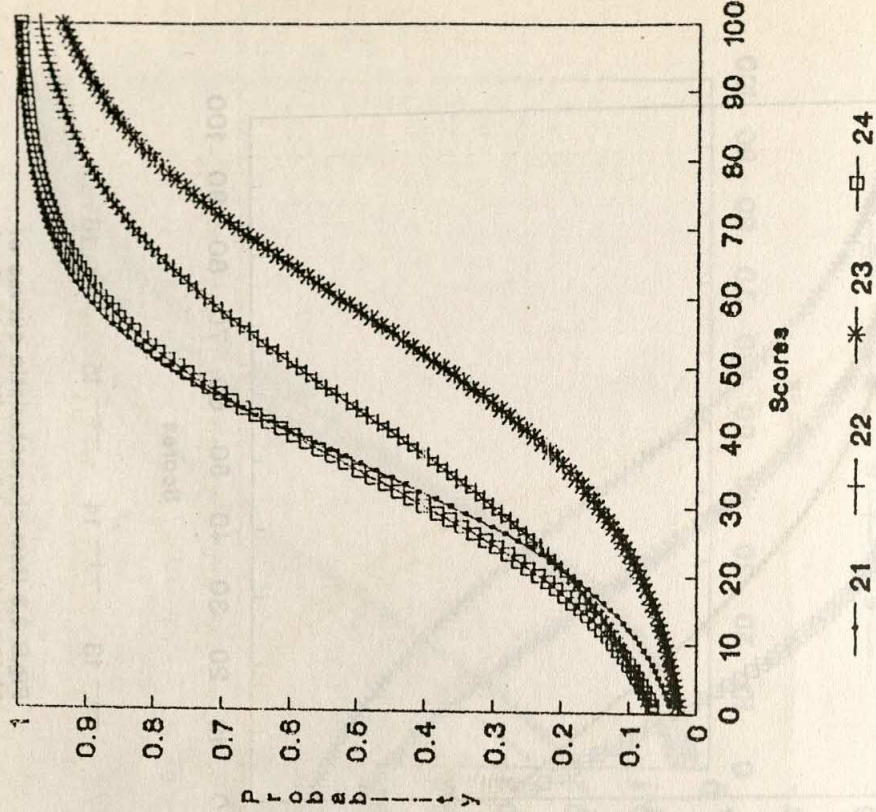


Fig.B 2.5 Item characteristic curves of Mathematics test items (No.21,22,23,24)

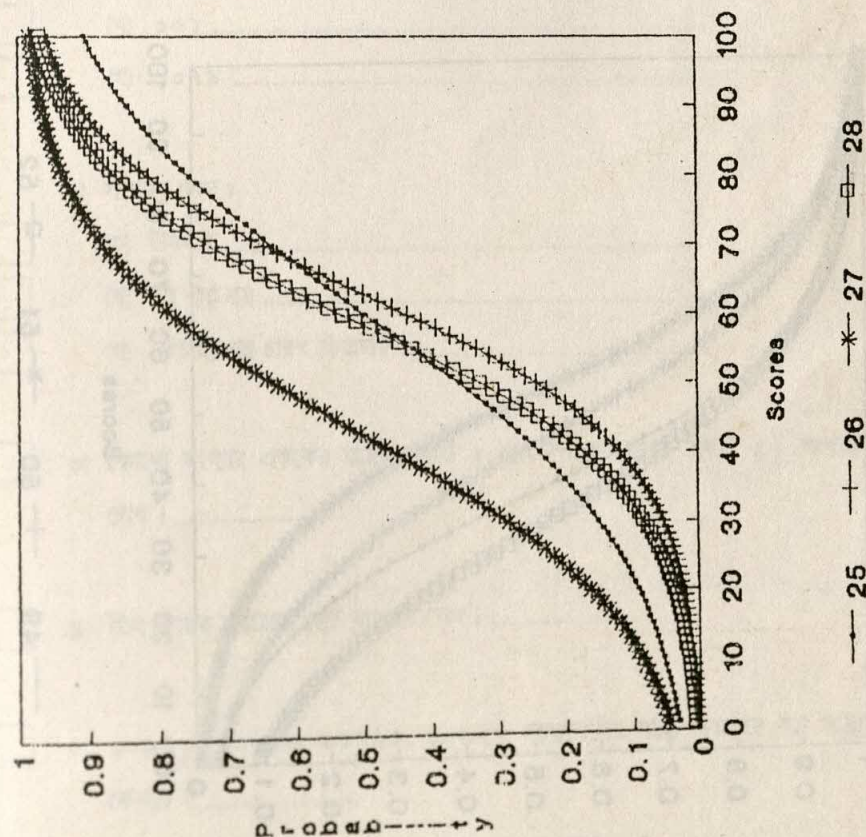


Fig.B 2.6 Item characteristic curves of Mathematics test Items (No.25,26,27,28)

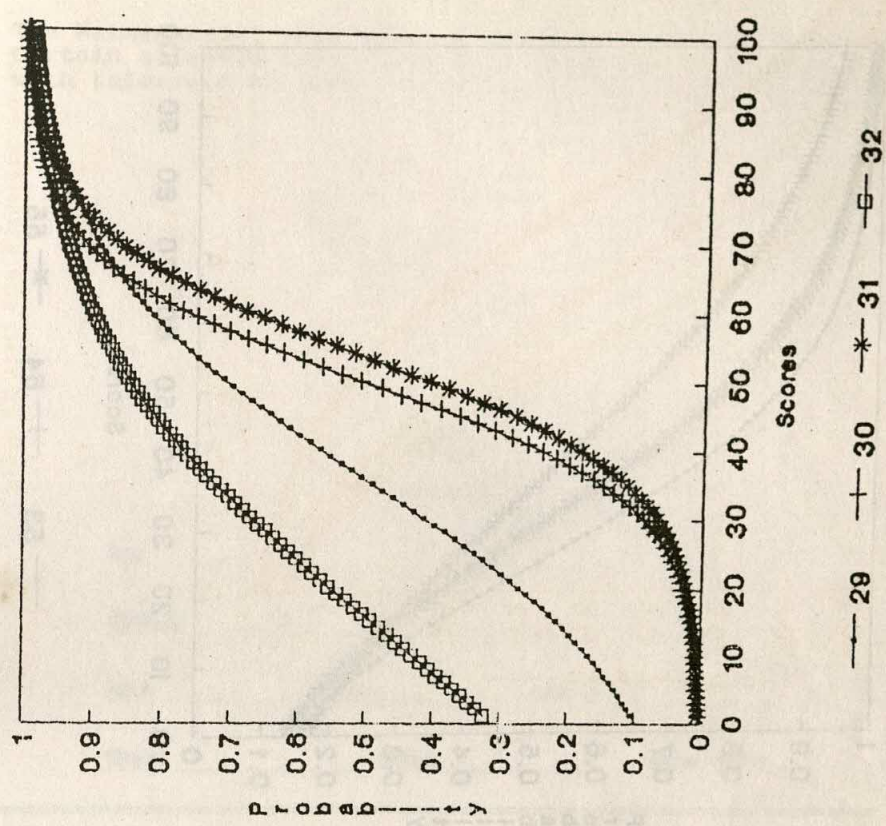


Fig.B 2.7 Item characteristic curves of Mathematics test Items (No.29,30,31,32)

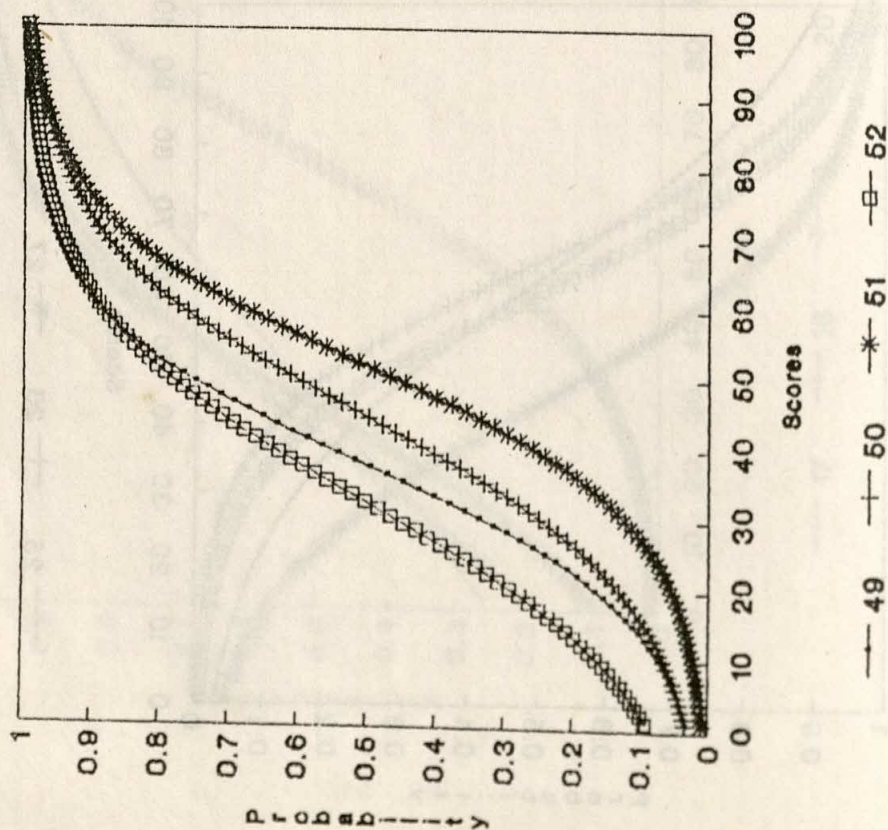


Fig.B 2.12 Item characteristic curves of Mathematics test items (No.49,50,51,52)

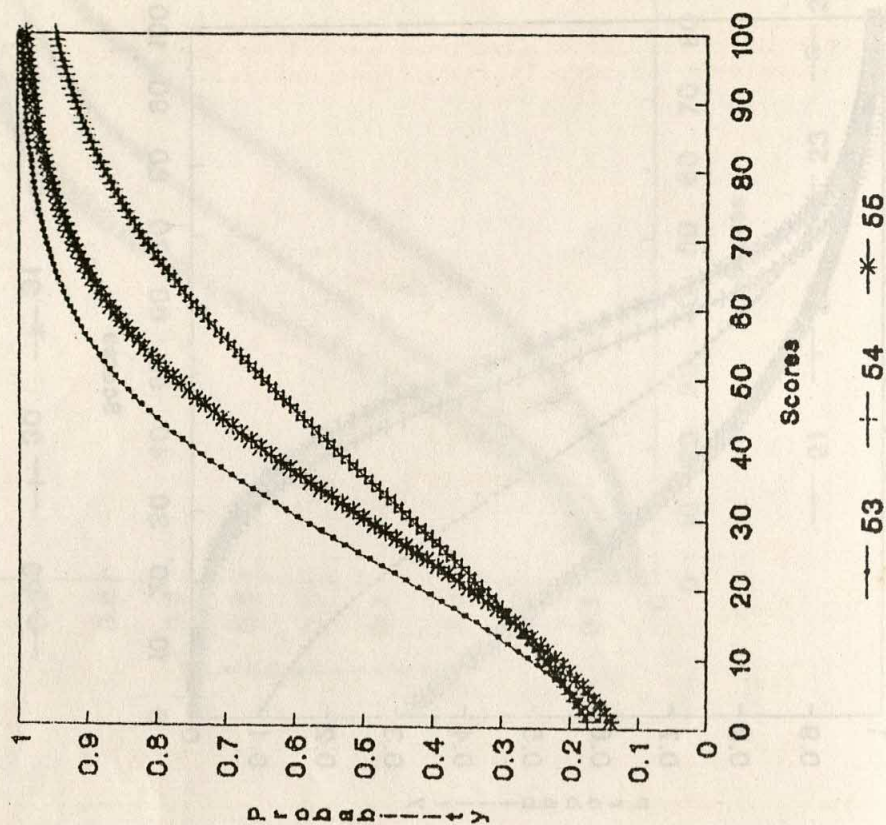


Fig.B 2.13 Item characteristic curves of Mathematics test items (No. 53, 54, 55)

The Mathematics test booklet is being presented. Certain selected items have been marked as they are with reference to ICCs (curves) shown earlier.

2103

গণিত
(চতুর্থ শ্রেণী)

নাম

বিদ্যালয়

জেলা রোল নং

বিভাগ তারিখ বালক/বালিকা

১। কথায় লেখ :

- 1 ☐ (ক) ১৭
- 2 ☐ (খ) ৩০১
- 3 ☐ (গ) ১০৭৯

২। সংখ্যায় লেখ :

- 4 ☐ (ক) ঊনষাট
- 5 ☐ (খ) নয় শত নয়
- 6 ☐ (গ) সাত হাজার চারশ তিয়াত্তর

7 ☐ ৩। কোনো সংখ্যার এককের ঘরের অঙ্কটি ২ এবং দশকের ঘরের অঙ্কটি ৩। সংখ্যাটি লেখ।

8 ☐ ৪। তিন অঙ্কের সবচেয়ে ছোট সংখ্যাটি লেখ।

9 ☐ ৫। ৩০৯২৩, ৪০৯২৩, ৩০৭২৩, ৩০৯২৭ সংখ্যাগুলির মধ্যে সবচেয়ে বড় সংখ্যা কোনটি ?

৬। যোগফল নির্ণয় কর :

10 ☐

(ক) $1+2=$

11 ☐

(গ) 98

$+129$

12 ☐

(ঘ) $25+12=$

৭। বিয়োগফল নির্ণয় কর :

13 ☐

(ক) $9-0=$

14 ☐

(গ) 905

-298

15 ☐

(ঘ) $100-99=$

৮। গুণফল নির্ণয় কর :

16 ☐

(ক) $12 \times 5=$

17 ☐

(গ) 28

$\times 19$

18 ☐

(ঘ) $808 \times 10=$

19 ☐

৯। ভাগফল নির্ণয় কর :

$800 \div 10=$

20 ☐

১০। ভাগফল ও ভাগশেষ নির্ণয় কর : $8 \overline{) 805}$

ভাগফল ভাগশেষ

21 ☐

১১। ৫ থেকে ৯-এর মধ্যে যেগুলি জোড় সংখ্যা সেগুলি লেখ :

.....

22 ☐

১২। ১৫-এর একটি গুণনীয়ক লেখ :

23 ☐ ১৩। ১২-এর দুটি গুণিতক লেখ :

24 ☐ ১৪। ৪ ও ৬-এর গ.সা.গু কত ?

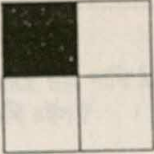
গ.সা.গু = ...

25 ☐ ১৫। ৬, ৮, ১২-এর ল.সা.গু কত ?

ল.সা.গু = ...

26 ☐ ১৬। দশমিক ভগ্নাংশে প্রকাশ কর :

$$\frac{৯}{১০০} = \dots\dots\dots$$

27 ☐ ১৭।  পাশের ছবিটির কালো জায়গাটুকু পুরো ছবিটির কত অংশ ?

অংশ = ...

28 ☐ ১৮। ফাঁকা জায়গায় সঠিক সংখ্যা বসাতো :

$$\frac{৯}{১২} = \frac{৩}{\quad} = \frac{\quad}{২৪}$$

29 ☐ ১৯। নিচের ভগ্নাংশগুলিকে ছোট থেকে বড়তে সাজাতো :

$$\frac{৩}{৫}, \frac{২}{৫}, \frac{৫}{৫} \quad \underline{\hspace{1cm}} \quad \underline{\hspace{1cm}} \quad \underline{\hspace{1cm}}$$

30 ☐ ২০। যোগফল নির্ণয় কর :

$$\frac{২}{৭} + \frac{৩}{৭} =$$

31 ☐ ২১। বিয়োগফল নির্ণয় কর :

$$\frac{৩}{৫} - \frac{৩}{১০} =$$



32 ☐ ২২। যোগফল নির্ণয় কর : ১৮.৫

+ ৬.৫

☐ ২৩। বিয়োগফল নির্ণয় কর : ২৪.৮

- ১৫.৯

☐ ২৪। গুণফল নির্ণয় কর :

$$১.৫ \times ১০ =$$

২৫। ভাগফল নির্ণয় কর :

☐ (ক) $১.২ \div ১০০ =$

☐ (খ) $৮ \overline{) ১১.২}$

☐ ২৬। ২০.০৫ টাকায় কত পয়সা ?

..... পয়সা

☐ ২৭। ১ কুইন্টাল ২৫ কিলোগ্রামে কত কিলোগ্রাম ?

..... কিলোগ্রাম

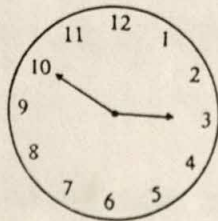
☐ ২৮। ১০৮ সেমিতে কত মিটার ?

..... মিটার

☐ ২৯। ৫, ৬, ৭-এর গড় কত ?

.....

☐ ৩০।



পাশের ঘড়িতে কটা বাজে ?

..... টা বেজে মিনিট

☐ ৩১। পরপর দুটি বিজোড় সংখ্যার বিয়োগফল কত ?

বিয়োগফল

☐ ৩২। কত থেকে ৮ বিয়োগ করলে বিয়োগফল ৪ হবে ?

সংখ্যাটি

☐ ৩৩। ১২কে কত দিয়ে গুণ করলে গুণফল ৩৬ হবে ?

সংখ্যাটি

☐ ৩৪। ২৪কে কত দিয়ে ভাগ করলে ভাগফল ৬ হবে ?

সংখ্যাটি

☐ ৩৫। তুমি বাজারে গিয়ে ৫০ পয়সার আলু, ৩৫ পয়সার বেগুন আর ৩০ পয়সার লেবু কিনলে। তোমার কত খরচ হল ?

.....

☐ ৩৬। একটি গাছে ৬টি পাখি ছিল, আরো ৪টি এসে বসল। তারপর ২টি পাখি উড়ে গেল। কটি পাখি রইল ?

.....

☐ ৩৭। একটি গাছ থেকে ৫টি আম এবং অন্য একটি গাছ থেকে আরো ৭টি আম পাড়া হল, তারপর এক একটি আম ১০ পয়সা দামে সব আম বিক্রয় করা হল। কত দাম পাওয়া গেল ?

.....

49 ☐ ৩৮। ১ টাকায় ৫টি কলা পাওয়া যায়। ৪ টাকার কলা কিনে ১০ জনের মধ্যে ভাগ করে দেওয়া হল। এক একজনে কটি করে কলা পেল ?

.....

50 ☐ ৩৯। গড়ে একজন ১০০ গ্রাম চালের ভাত খায়। ১৫ জনের জন্য ভাত রান্নাতে কত চাল লাগবে ?

.....

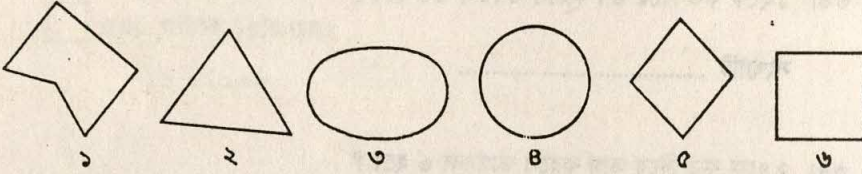
51 ☐ ৪০। কোন সংখ্যাকে ২ দিয়ে ভাগ করলে ভাগফল ১০ হবে ?

সংখ্যাটি

52 ☐ ৪১। তানিয়া রোজ ১৫টি অঙ্ক কষে। সে সাত দিনে কয়টি অঙ্ক কষবে?

..... অঙ্ক কষবে।

৪২। কয়েকটি চিত্র দেওয়া আছে। প্রতিটির নিচে একটি করে সংখ্যা লেখা আছে। তারও নিচে কয়েকটি চিত্রের নাম—ত্রিভুজ, চতুর্ভুজ ও বৃত্ত লেখা আছে। ওদের পাশে ফাঁকা জায়গায় চিত্রের নিচে লেখা সংখ্যাটি লেখ। একটি উদাহরণ (খ) দেওয়া আছে দেখে নাও।



53 ☐ (ক) ত্রিভুজ . 54 ☐ (খ) বর্গক্ষেত্র ৬ ☐ (গ) বৃত্ত . 55 ☐ (ঘ) চতুর্ভুজ _____

Evaluation of attainment level of primary students at the end of class IV (1990-91) in West Bengal: a collaborative project between Psychometric Research and Service Unit, Indian Statistical Institute, Calcutta and State Council of Educational Research and Training, West Bengal.

3. EVS Test Items (Fig. B 3.0 - Fig. B 3.13)

Curves for items 2,3 and 4 overlap each other. This implies that all these items are almost identical in nature. They are related to the area of EVS in a similar way. From the psychometric point of view it can be said that if one of such items is replaced by another, the psychometric property of the test as such will not change.

Items 5 to 8 are also similar in type but differ in difficulties. Items 9 to 16 are all related to ancient history of India and foreign lands. Shapes of all the curves are different, except 14 and 16. All curves are different in terms of both slope and location.

Item 28 appears to be a very poor item. It fails to distinguish between the poor and the bright students in EVS. On the other hand items 29 to 32 are similar in respect to the discriminating parameter.

Item 41 is interesting. This item is related to biology and does not fit into the content area of this test. Further, probability function of this item violates one of the assumptions of the model. In other words, $P_i(x)$ should be non-decreasing with x , but it shows decrease.

Let items 49 to 52 be considered. The probabilities of giving correct answers for both are almost the same for low scoring students. But for high scores the probabilities differ considerably. Items 54 and 55 overlap each other. Probabilities of correct responses to items 55 and 56 at 0 score are 0.12 and 0.03; the difference being quite negligible (0.09). But the difference in probabilities at 100 is as high as 0.60 (0.93 - 0.33)

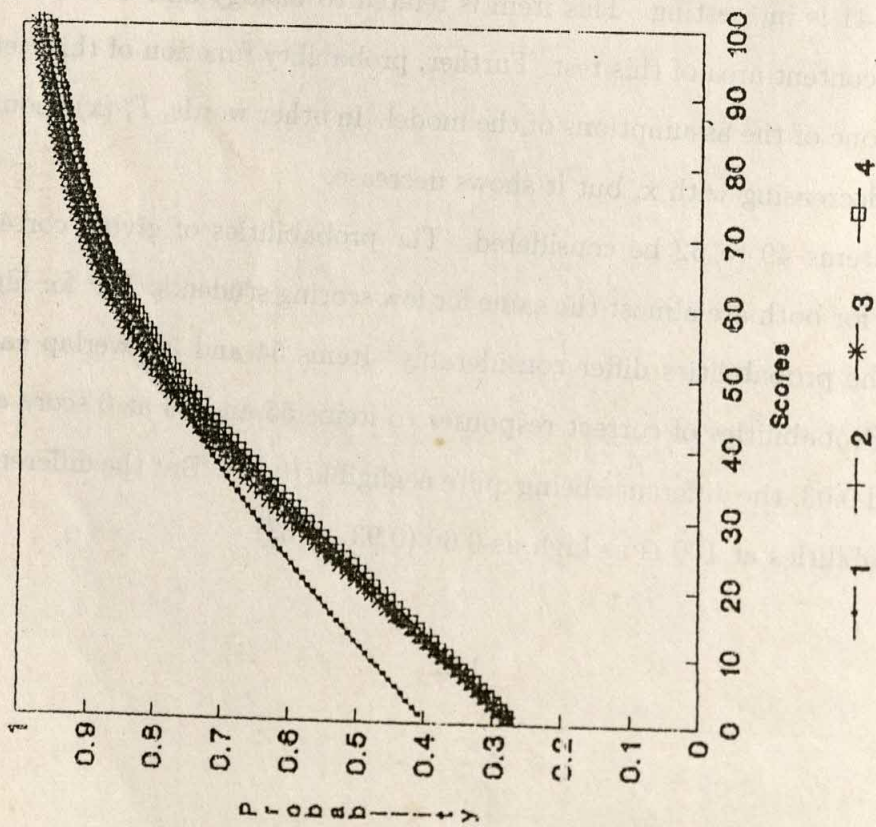


Fig.B 3.0 Item characteristic curves of EVS test items (No. 1, 2, 3, 4)

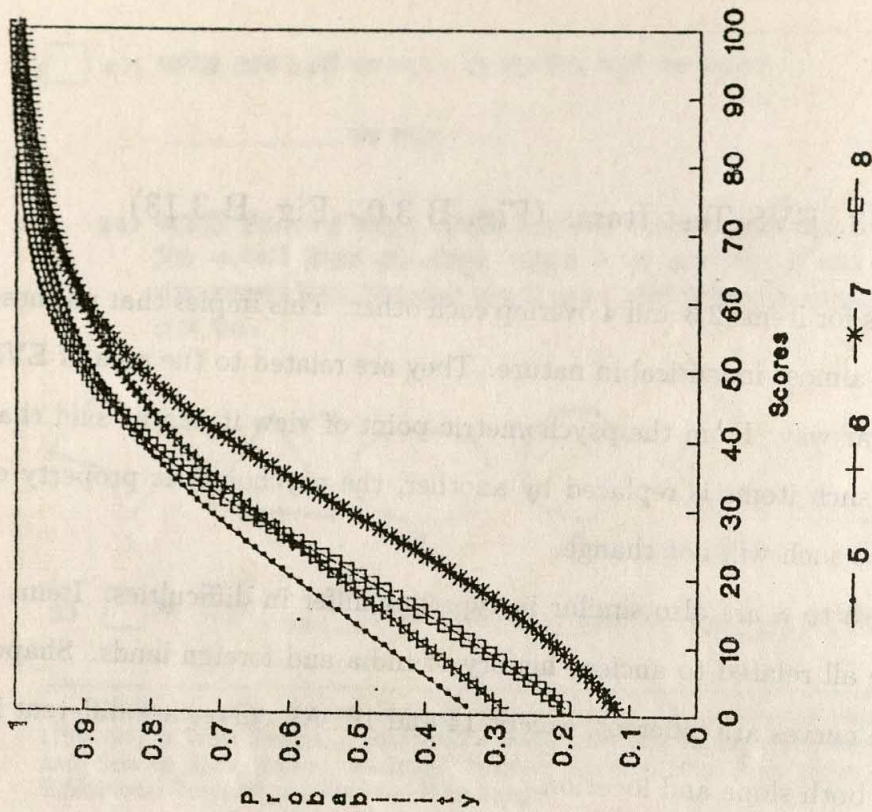


Fig.B 3.1 Item characteristic curves of EVS test items (No. 5, 6, 7, 8)

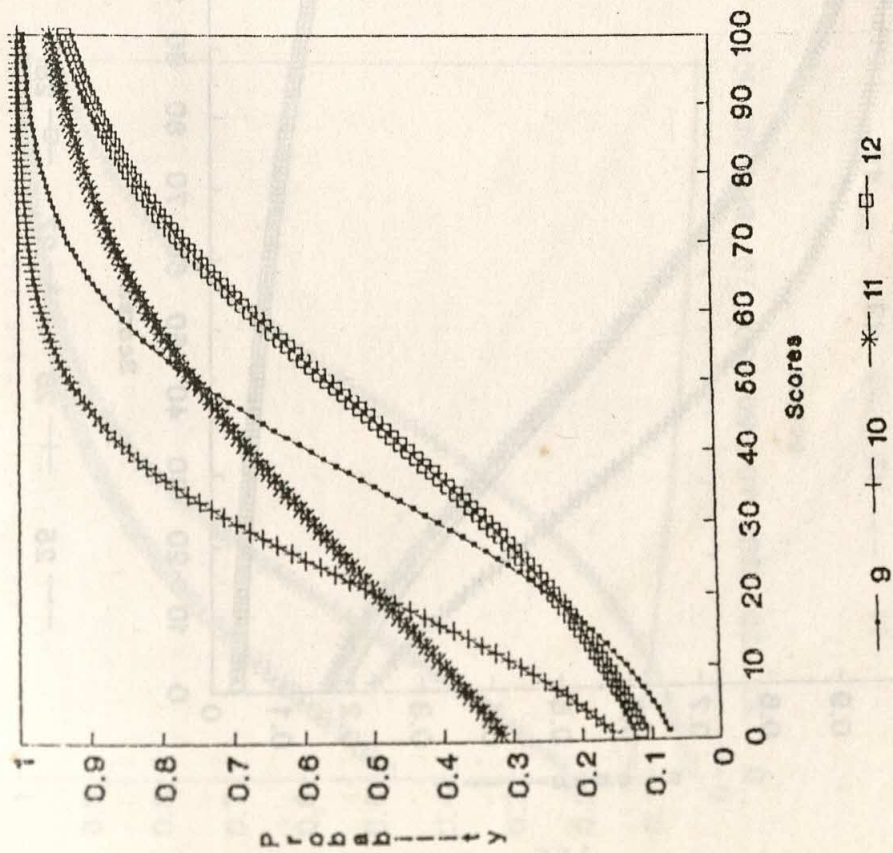


Fig.B 3.2 Item characteristic curves of EVS test items (No. 9,10,11,12)

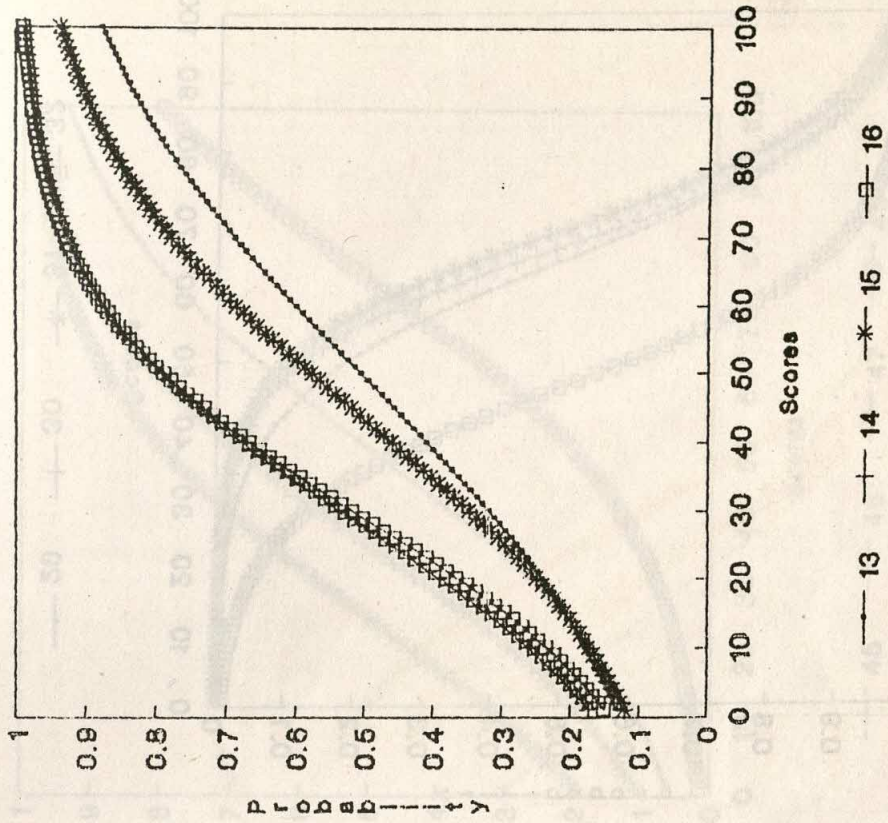


Fig.B 3.3 Item characteristic curves of EVS test items (No.13,14,15,16)

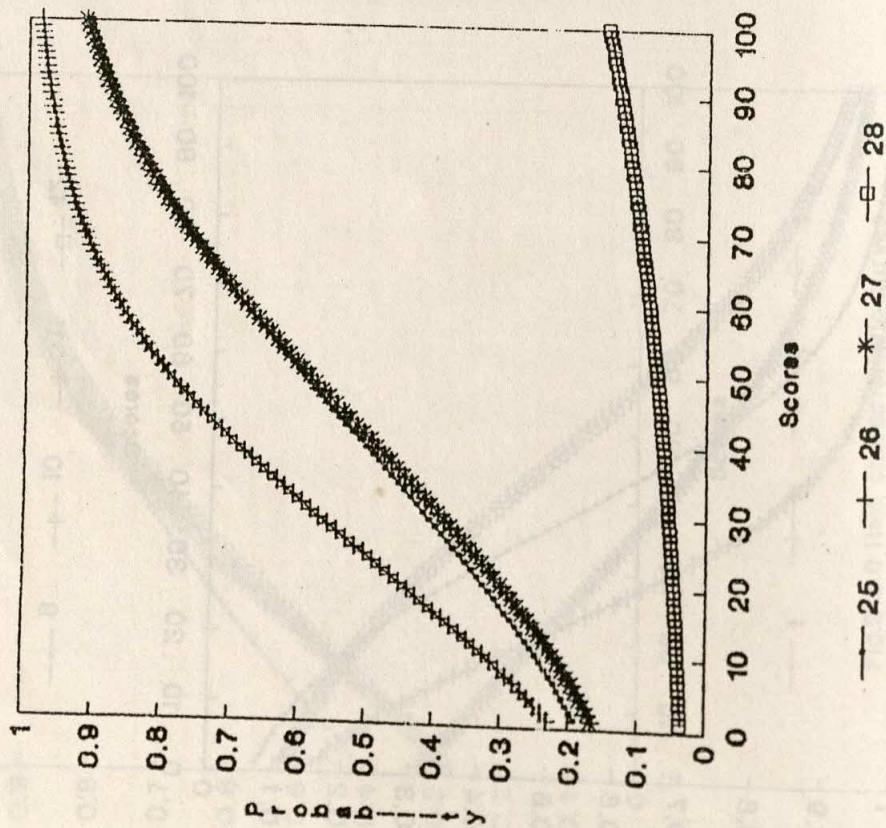


Fig.B 3.6 Item characteristic curves
of EVS test items (No.25,26,27,28)

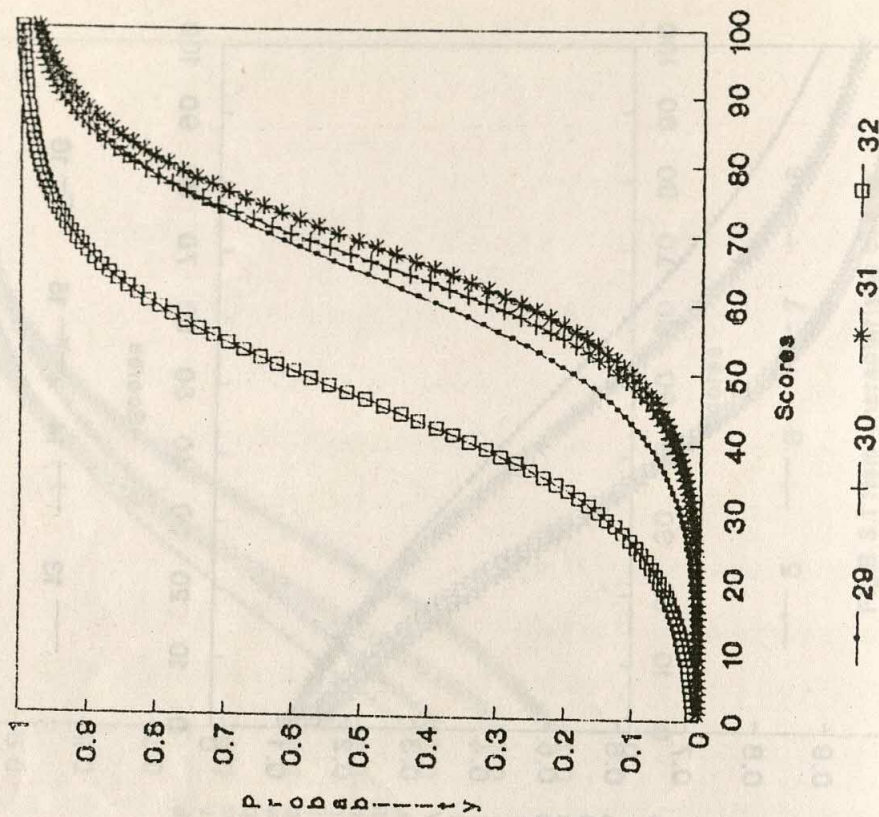


Fig.B 3.7 Item characteristic curves
of EVS test items (No.29,30,31,32)

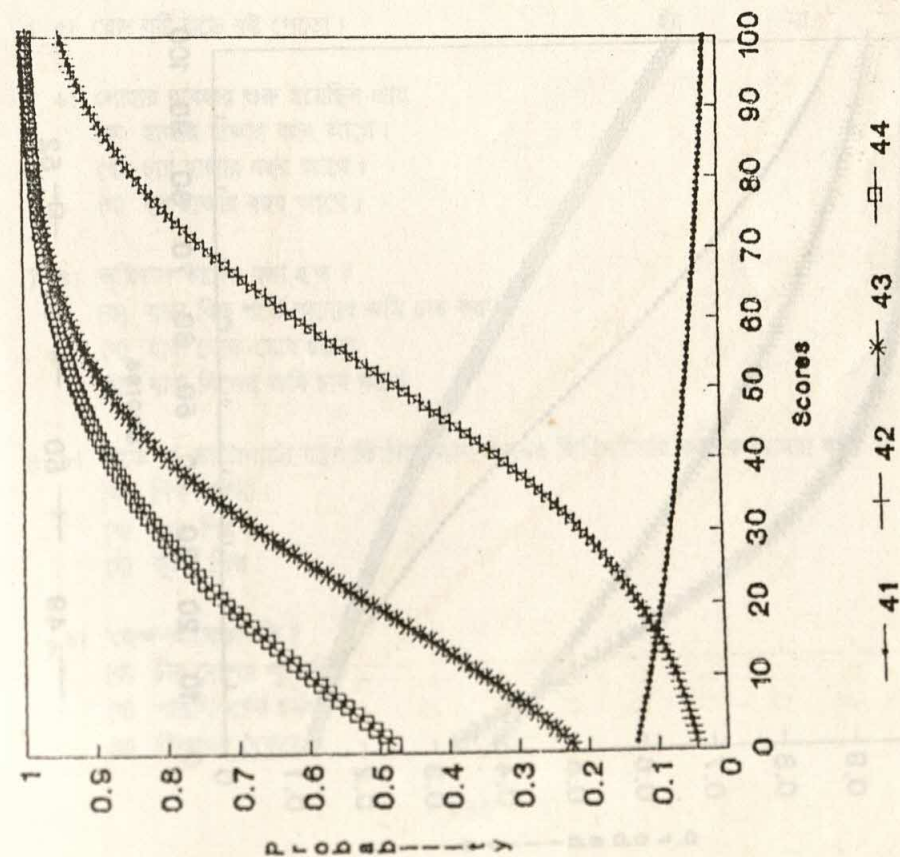


Fig.B 3.10 Item characteristic curves
of EVS test items (No. 41,42,43,44)

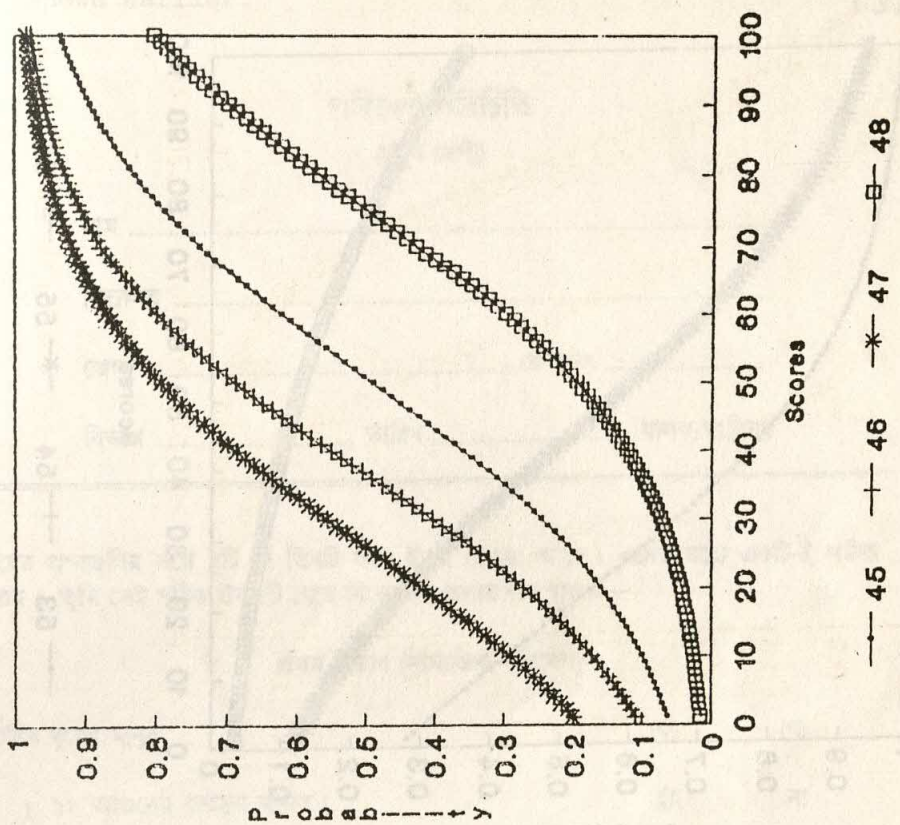


Fig.B 3.11 Item characteristic curves
of EVS test items (No. 45,46,47,48)

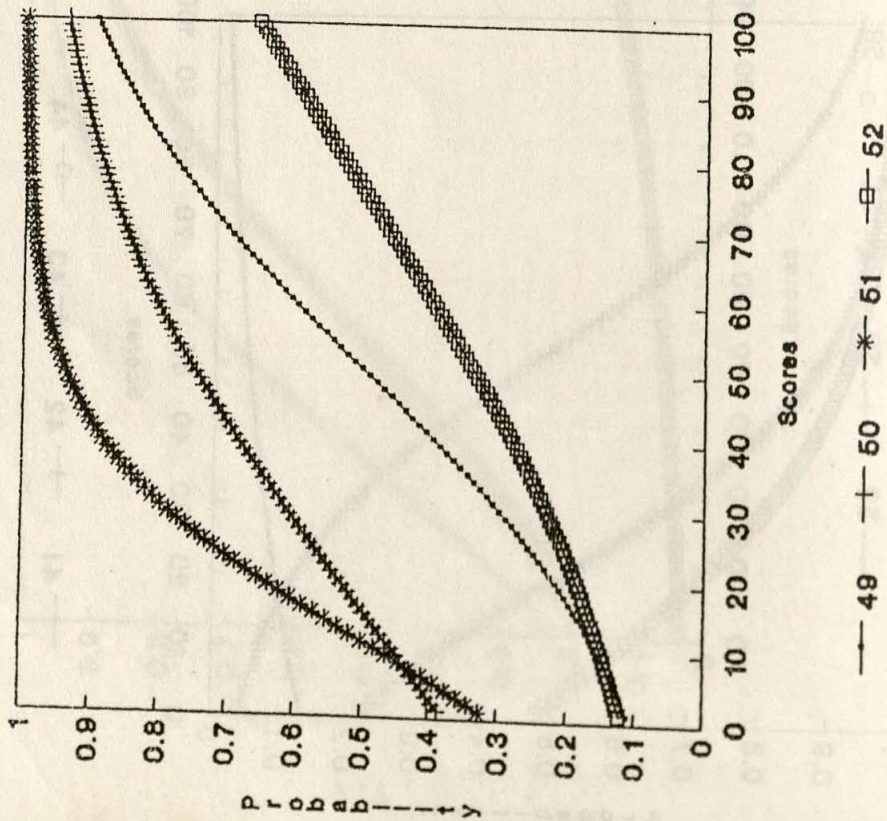


Fig.B 3.12 Item characteristic curves
of EVS test items (No. 48,50,51,52)

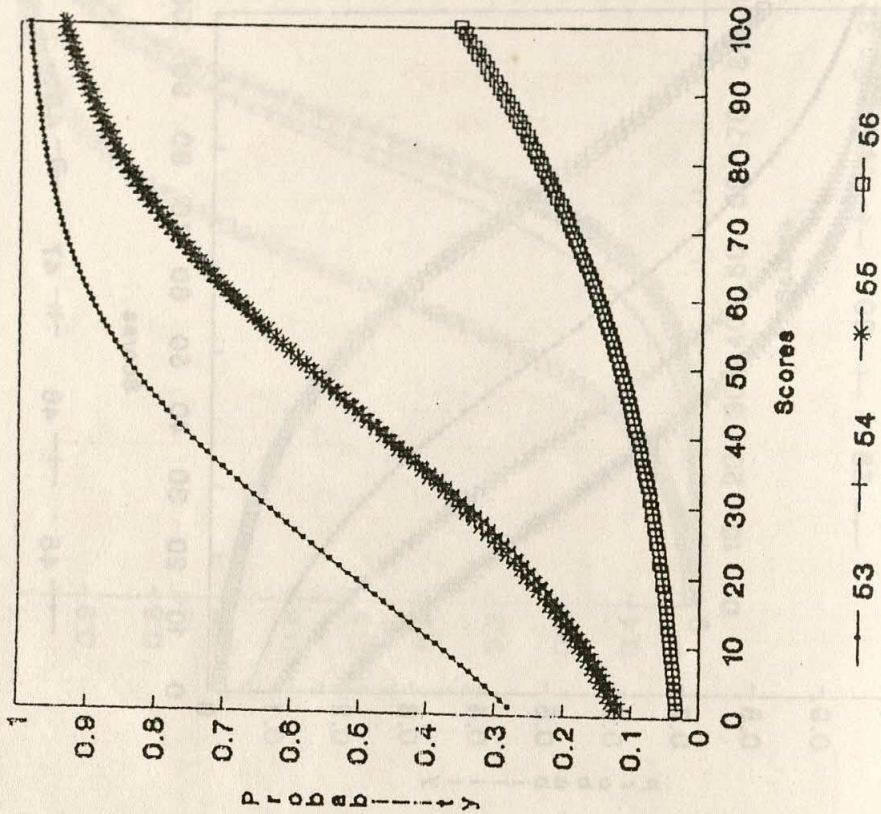


Fig.B 3.13 Item characteristic curves
of EVS test items (No. 53,54,55,56)

The Environmental Studies (EVS) test booklet is being presented. Certain selected items have been marked as they are with reference to IOCs (curves) shown earlier.

13233

পরিবেশ পরিচিতি

(চতুর্থ শ্রেণী)

নাম

বিদ্যালয়

জেলা রোল নং

বিভাগ তারিখ বালক/বালিকা

নীচের প্রশ্নগুলির সঙ্গে দুটি বা তিনটি করে উত্তর দেওয়া আছে। এদের মধ্যে একটি-ই সঠিক উত্তর। তুমি সেই সঠিক উত্তরটি বেছে নিয়ে তার তলায় দাগ দাও :—

প্রথম বিভাগ (সামাজিক পরিবেশ)

আদিম যুগের মানুষ

(ক) (খ)

- 1 ১। আগুনের ব্যবহার জানত।
- 2 ২। কৃষিকাজ জানত।
- 3 ৩। অনেকটা অন্য জীবজন্তুর মতো।
- 4 ৪। পোশাক পরতো।
- 5 ৫। রোদ-বৃষ্টি-ঝড়ে কষ্ট পেতো।

হ্যাঁ না
হ্যাঁ না
হ্যাঁ না
হ্যাঁ না
হ্যাঁ না

- 6 ৬। লোহার ব্যবহার শুরু হয়েছিল প্রায়
(ক) হাজার হাজার বছর আগে।
(খ) চার হাজার বছর আগে।
(গ) দশ হাজার বছর আগে।

- 7 ৭। ভূমিদাস কাদের বলা হ'ত ?
(ক) যারা কিছু শর্তে অন্যের জমি চাষ করত
(খ) যারা গোরু-মোষ চরাতে
(গ) যারা নিজের জমি চাষ করত

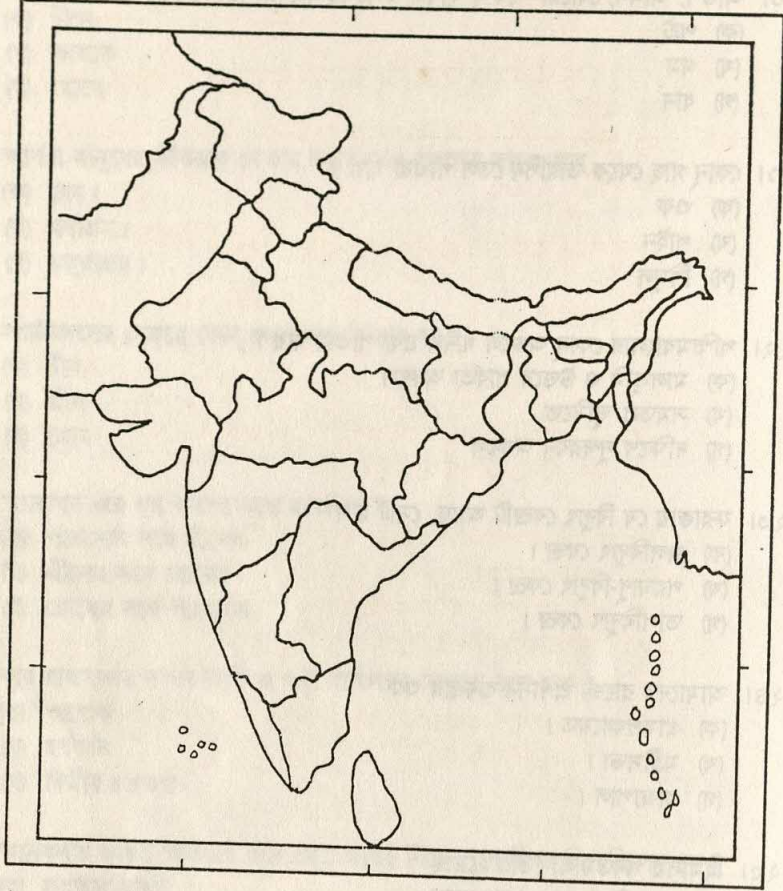
- 8 ৮। হাতে বা ছোটোখাটো যন্ত্রপাতি দিয়ে নানা ধরনের জিনিস তৈরি করাকে আমরা বলি
(ক) শিক্ষাবিসী।
(খ) বৃহৎ শিল্প।
(গ) কুটীর শিল্প।

- 9 ৯। 'জৈন্দ-আবেস্তা' কি ?
(ক) চীন দেশের পুরোহিত
(খ) পারসিকদের ধর্মগ্রন্থ
(গ) গ্রীকদের দেবতা

- 10 ১০। প্রথম কাগজ তৈরি হয় কোন্ দেশে ?
 (ক) চীনে
 (খ) ভারতে
 (গ) রোমে
- 11 ১১। আর্যরা মানুষের জীবনকে যে চার ভাগে ভাগ করলেন তাকে বলে
 (ক) বেদ।
 (খ) বর্ণাশ্রম।
 (গ) চতুরাশ্রম।
- 12 ১২। স্পার্টাকাসের নেতৃত্বে কোন্ দেশে দাস-বিদ্রোহ হয় ?
 (ক) চীন
 (খ) গ্রীস
 (গ) রোম
- 13 ১৩। 'ম্যারাথন'-এর যুদ্ধ কাদের মধ্যে হয়েছিল ?
 (ক) পারস্যের সঙ্গে গ্রীসের
 (খ) গ্রীসের সঙ্গে রোমের
 (গ) রোমের সঙ্গে পারস্যের
- 14 ১৪। কার রাজসভায় ন'জন স্ত্রী ও গুণী ব্যক্তিদের 'নবরত্ন' বলা হ'ত ?
 (ক) অশোক
 (খ) হর্ষবর্ধন
 (গ) দ্বিতীয় চন্দ্রগুপ্ত
- 15 ১৫। অনেকবার ভারত আক্রমণ করে অচুর ধনরত্ন নিয়ে দেশে ফিরে গিয়েছিলেন কে ?
 (ক) সুলতান মামুদ
 (খ) সবুজগীন
 (গ) ইব্রাহিম লোদী
- 16 ১৬। কনফুসিয়াস কোন্ দেশের লোক ?
 (ক) পারস্য
 (খ) গ্রীস
 (গ) চীন
- ১৭। জৈন ধর্ম কে প্রচার করেন ?
 (ক) গৌতম বুদ্ধ
 (খ) মহাবীর
 (গ) নানক
- ১৮। ফা-হিয়েন এবং হিউ-এন-সাং কোন্ দেশের লোক ছিলেন ?
 (ক) আরব
 (খ) চীন
 (গ) রোম
- ১৯। আমাদের দেশে কোন্ যুগকে 'মধ্যযুগ' বলা হয় ?
 (ক) হর্ষবর্ধনের যুগ থেকে মোগল যুগ পর্যন্ত
 (খ) মৌর্য যুগ থেকে কুষাণ যুগ পর্যন্ত
 (গ) গুপ্ত যুগ থেকে হর্ষবর্ধনের যুগ পর্যন্ত

দ্বিতীয় বিভাগ (প্রাকৃতিক পরিবেশ)

- ২০। আউশ, আমন, বোরো—কোন কৃষিজ ফসলের নামের সঙ্গে ব্যবহার করা হয় ?
(ক) পাট
(খ) গম
(গ) ধান
- ২১। কোন গাছ থেকে তারপিন তেল পাওয়া যায় ?
(ক) ওক
(খ) পাইন
(গ) শিমুল
- ২২। পশ্চিমবঙ্গের কোন অঞ্চলে খনিজ দ্রব্য পাওয়া যায় ?
(ক) মালভূমি ও উত্তরে পার্বত্য অঞ্চলে
(খ) সমতল ভূমিতে
(গ) দক্ষিণে সুন্দরবন অঞ্চলে
- ২৩। ফরাকায় যে বিদ্যুৎ কেন্দ্রটি আছে, সেটি হ'ল
(ক) জলবিদ্যুৎ কেন্দ্র।
(খ) পরমাণু-বিদ্যুৎ কেন্দ্র।
(গ) তাপবিদ্যুৎ কেন্দ্র।
- ২৪। আমাদের রাজ্যে প্রশাসন-ব্যবস্থার শুরু
(ক) গ্রামপঞ্চায়েত।
(খ) মন্ত্রীসভা।
(গ) রাজ্যপাল।
- ২৫। ২৫। হিমালয় পর্বতমালা তৈরি হয়েছে
(ক) অত্যধিক বরফ পড়ার ফলে।
(খ) অগ্ন্যুৎপাতের ফলে।
(গ) ভূমিকম্পের ফলে।
- ২৬। ২৬। গম সাধারণত কোন ঋতুর ফসল ?
(ক) গ্রীষ্ম
(খ) বর্ষা
(গ) শীত
- ২৭। ২৭। বর্তমানে কৃষির উন্নতির জন্য কি কি ব্যবস্থা নেওয়া হয়েছে ?
(ক) ভালো বীজ, পাম্পসেটে জলসেচ ও রাসায়নিক সার
(খ) ভালো বীজ, মাটি পরীক্ষা, রাসায়নিক সার, পাম্পসেটে জলসেচ, আধুনিক যন্ত্রপাতির ব্যবহার ও কীটনাশক ব্যবহার
(গ) ভালো বীজ, পাম্পসেটে জলসেচ, রাসায়নিক সার, কীটনাশক ব্যবহার ও আধুনিক যন্ত্রপাতির ব্যবহার
- ২৮। ২৮। আমাদের দেশে কয়লা, আকরিক লোহা, আকরিক অ্যালুমিনিয়াম ও আকরিক তামা সবক'টিই পাওয়া যায়
(ক) পশ্চিমবঙ্গ, বিহার ও ওড়িশায়।
(খ) পশ্চিমবঙ্গ ও বিহারে।
(গ) শুধুমাত্র বিহারে।



৩০। কোন বিষয় থেকে আমরা পৃথিবীর অবস্থা ও সম্পদ সম্পর্কে জানতে পারি ?

(ক) ইতিহাস

(খ) ভূগোল

(গ) প্রকৃতি বিজ্ঞান

নীচের প্রশ্নগুলির পাশে যেটি সঠিক তার তলায় দাগ দাও :—

৩১। পাটকল, সিমেন্ট এগুলি ক্ষুদ্রশিল্প/বৃহৎ শিল্প।

৩২। জিনিসপত্রের দেওয়া-নেওয়ার কাজকে বলে ব্যবসা-বাণিজ্য/যোগাযোগ।

৩৩। ভারতের একটি প্রধান বিমান বন্দর হ'ল দমদম/কোচিন।

তৃতীয় বিভাগ (প্রকৃতি বিজ্ঞান)

৩৪। যেটি সজীব, তার তলায় দাগ দাও :—

বই, কলম, বাড়ি, শ্যাওলা, খাতা, মৃতদেহ

৪১ ৩৫। যেটি জড় পদার্থ, তার তলায় দাগ দাও :—

সাপ, ব্যাঙের ছাতা, বাটি, ঘাস, ফার্ণ

- 42 ৩৬। নীচের প্রাণীগুলির মধ্যে কোনটি মেরুদণ্ডী অণুচ স্তন্যপায়ী নয়, তার তলায় দাগ দাগ :—
মাছ, গোক, কুকুর, হাতি, মৌমাছি
- 43 ৩৭। কোন পতঙ্গ আমাদের দেহে ম্যালেরিয়ার জীবাণু প্রবেশ করিয়ে দেয় ?
(ক) মাছি
(খ) পিপড়ে
(গ) মশা
- 44 ৩৮। কোন পতঙ্গ আমাদের চাষের কাজে সুবিধা করে ?
(ক) মশা
(খ) কেঁচো
(গ) ফড়িং
- 45 ৩৯। নীচের উদ্ভিদগুলির মধ্যে যেটি অপুষ্পক, তার তলায় দাগ দাগ :—
ধান, ঘাস, গাঁদা, ঢেঁকিশাক, কচুরিপানা
- 46 ৪০। বীজের অঙ্কুরোদগমের শর্তগুলির মধ্যে কোনটি সঠিক ?
(ক) জল ও বাতাস
(খ) জল, বাতাস ও স্বাভাবিক উত্তাপ
(গ) জল ও স্বাভাবিক উত্তাপ
- 47 ৪১। উদ্ভিদ খাদ্য গ্রহণ করার জন্য বাতাস থেকে কোন্ গ্যাসীয় পদার্থ গ্রহণ করে ?
(ক) কার্বন ডাই-অক্সাইড
(খ) অক্সিজেন
(গ) জলীয় বাষ্প
- 48 ৪২। গুণের প্রকৃত মূল্য নির্ভর করে
(ক) শুধু তার ফুল, ফল ও কাঠের উৎপাদনের ক্ষমতার উপর।
(খ) শুধু তার অক্সিজেন উৎপাদন, বায়ু-দূষণ প্রতিরোধ, ভূমিক্ষয় রোধ ও মাটি থেকে জল তুলে বাতাসে যোগ করার ক্ষমতার উপর।
(গ) 'ক' ও 'খ'-এ লিখিত সবগুলি ক্ষমতার উপর।
- 49 ৪৩। খাদ্যের মধ্যে যে শক্তি সঞ্চিত আছে, তা হ'ল
(ক) জলশক্তি।
(খ) তাপশক্তি।
(গ) বায়ুশক্তি।
- 50 ৪৪। রেডিও কোন্ শক্তির সাহায্যে বাজে ?
(ক) বৈদ্যুতিক শক্তি
(খ) তাপশক্তি
(গ) বায়ুশক্তি
- 51 ৪৫। রোদে এক টুকরো লোহা ও এক টুকরো কাঠ ফেলে রাখলে কিছুক্ষণ বাদে কোন্টা বেশি গরম লাগবে ?
(ক) কাঠ
(খ) লোহা
(গ) দুটোই সমান গরম লাগবে

52 ৪৬। কেটলি-ভর্তি জল উনুনে ফুটবার সময় দেখা যায় যে নলের মুখ থেকে জল বেরিয়ে পড়ে যাচ্ছে, এর কারণ

- (ক) তাপ পেলে কেটলির জল গরম হয়ে যায়।
- (খ) জল বাষ্পীভূত হয়ে যায়।
- (গ) তাপের প্রভাবে জলের আয়তন বেড়ে যায়।

53 ৪৭। কোনো জিনিস কতটা ঠাণ্ডা বা কতটা গরম, কি দিয়ে মাপা হয়?

- (ক) হাত দিয়ে হুঁয়ে
- (খ) থার্মোমিটার দিয়ে
- (গ) ফুট-স্কেল দিয়ে

54 ৪৮। ভিজ়ে কাপড় শুকায় কেন?

- (ক) কাপড়ের জল বাষ্প হয়ে যায় বলে
- (খ) ভিজ়ে কাপড় বেশি ক্ষণ জল ধরে রাখতে পারে না বলে
- (গ) বাতাসে জলীয় বাষ্প বেশি থাকে বলে

55 ৪৯। সূর্য একটি

- (ক) গ্রহ।
- (খ) নক্ষত্র।
- (গ) উপগ্রহ।

56 ৫০। পৃথিবীর সবচেয়ে কাছের গ্রহ কোন্টি?

- (ক) বুধ
- (খ) মঙ্গল
- (গ) শুক্র

৫১। সূর্যের চারদিকে পৃথিবীর একবার ঘোরাকে বলে

- (ক) বার্ষিক গতি।
- (খ) আন্বিক গতি।

৫২। উত্তর গোলার্ধে কোন্ তারিখে দিন সবচেয়ে বড়ো হয়?

- (ক) ২১শে সেপ্টেম্বর
- (খ) ২৫শে ডিসেম্বর
- (গ) ২৩শে জুন

৫৩। শ্বাসকার্যের সময় আমরা বাতাস থেকে গ্রহণ করি

- (ক) অক্সিজেন।
- (খ) কার্বন ডাই-অক্সাইড।

৫৪। আমাদের শরীরে যে যন্ত্রের সাহায্যে শ্বাসকার্য চলে তার নাম

- (ক) শ্বাসনালী।
- (খ) ফুসফুস।
- (গ) হৃৎপিণ্ড।

৫৫। আমাদের হৃৎপিণ্ডের কাজ হ'ল

- (ক) রক্ত তৈরি করা।
- (খ) রক্তকে পরিশুদ্ধ করা।
- (গ) দেহে রক্ত সঞ্চালন করা।

- ৫৬। আমাদের পাঁচটি ইন্দ্রিয়ের সাহায্যে আমরা
 (ক) বাইরের নানারকম দৃশ্য দেখতে পাই।
 (খ) বাইরের নানারকম শব্দ শুনতে পাই।
 (গ) বাইরের জগৎ সম্পর্কে নানারকম ধারণা লাভ করি।

চতুর্থ বিভাগ (পরিবেশ চেষ্টনা)

This part has not been given any score

- ১। আমাদের দৈনন্দিন জীবনে রেডিও বা খবরের কাগজ
 (ক) খুবই প্রয়োজনীয়, কারণ এর থেকে আমরা দেশ-বিদেশের নানান খবর পাই এবং শিক্ষালাভ করি।
 (খ) একেবারেই প্রয়োজনীয় নয়, কারণ এর থেকে আমরা কিছুই শিক্ষালাভ করি না— শুধুই সময় নষ্ট ও অর্থের অপচয় হয়।
- ২। অসুখ-বিসুখ করলে কি করা উচিত?
 (ক) ওষুধ দেখিয়ে ঝাড়ফুক করা।
 (খ) ডাক্তার, বৈদ্য দেখিয়ে ওষুধ খাওয়ানো।
 (গ) মাদুলি, তাবিজ, কবচ পরানো এবং ভগবানের কাছে প্রার্থনা করা।
- ৩। ধর, তোমার পাশের বাড়িতে কারো কলেরা বা ওলাওঠা হয়েছে, তাকে দেখবার কেউ নেই, তখন তুমি কি করবে?
 (ক) তার কাছে যাবই না, কারণ কলেরা খুব ছোঁয়াচে রোগ।
 (খ) লোকজনকে বলব তাকে দূরে কোথাও ফেলে রেখে আসতে।
 (গ) পাড়ার লোকজনকে বলব তাকে হাসপাতালে বা স্বাস্থ্যকেন্দ্রে নিয়ে যেতে।
- ৪। কি ভাবে টাকা রোজগার করা ঠিক?
 (ক) লটারী থেকে
 (খ) নিজে কাজ-কর্ম বা পরিশ্রম করে
 (গ) অপরের কাছ থেকে চেয়ে নিয়ে
- ৫। পশ্চিমবাংলায় বাঙ্গালী ছাড়া আরও অনেক প্রদেশের অধিবাসী বাস করেন।
 (ক) এটা ঠিক নয়, কারণ যে যে ভাষায় কথা বলে, তার সেই ভাষার জন্য নির্দিষ্ট প্রদেশেই বাস করা উচিত।
 (খ) এটাই ঠিক, কারণ ভারতীয় হিসাবে, যে কোনও ভাষাভাষীর লোক ভারতবর্ষের যে কোনও প্রদেশে বসবাস করতে পারে।
- ৬। জমিতে ভালো ফসল হওয়া নির্ভর করে
 (ক) উপযুক্ত বীজ, সার, জল ও কৃষকের পরিশ্রমের উপর।
 (খ) কৃষকের ভাগ্যের উপর।
 (গ) ভগবানের দয়ার উপর।
- ৭। চন্দ্রগ্রহণ হয় কেন?
 (ক) রাহু চন্দ্রকে গ্রাস করে
 (খ) পৃথিবীর ছায়া চন্দ্রের উপর পড়ে
 (গ) ভগবান চন্দ্রকে আড়াল করেন
- ৮। বন্যা, ভূমিকম্প প্রভৃতি হচ্ছে
 (ক) প্রাকৃতিক বিপর্যয়।
 (খ) ভগবানের অভিশাপ।

- ৯। গ্রহণের সময় খাবার খাওয়া
(ক) ক্ষতিকর, কারণ ঐ সময় খাবারগুলি দূষিত হয়।
(খ) ক্ষতিকর, কিন্তু তুলসীপাতা বা গঙ্গাজল দিয়ে রাখলে দোষ কেটে যেতে পারে।
(গ) মোটেই ক্ষতিকর নয়, কারণ খাবারের উপর গ্রহণের কোনও প্রভাব নেই।
- ১০। গরমকালেও রাতের বেলায় গাছের তলায় শুয়ে থাকা উচিত নয় কেন ?
(ক) রাতে গাছ বেশি কার্বন ডাই-অক্সাইড গ্যাস ছাড়ে
(খ) ঠাণ্ডা লাগতে পারে
(গ) ভূত-প্রেতে ধরতে পারে
- ১১। পরীক্ষায় তুমি খুব কম নম্বর পেলে
(ক) তুমিই দায়ী, কারণ তুমি ভালো ক'রে পড়াশোনা করনি।
(খ) বিদ্যালয়ের শিক্ষকমশাই বা দিদিমণিই দায়ী, কারণ তিনি তোমাকে ভালো নম্বর দেননি।
(গ) তোমার ভাগ্যই দায়ী, কারণ চেষ্টা ক'রেও তুমি ভালো নম্বর পাওনি।

Evaluation of attainment level of primary students at the end of class IV (1990-91) in West Bengal : a collaborative project between Psychometric Research and Service Unit, Indian Statistical Institute, Calcutta and State Council of Educational Research and Training, West Bengal.

Confidence intervals

Confidence intervals (95 percent) in Bengali, Mathematics and EVS test scores are shown in Fig.B5 and Fig.B6, respectively. Both the x and y axes in the figures are in the same scale as of scores. It may be noted that the y-axis is extended beyond 0 and 100. In this scale the origin (0 score) is arbitrary for obvious reasons. Actual score is restricted to a range between 0 and 100. The latent ability/skill, on the other hand, is not thus restricted. It can take values beyond 0 or 100. So, x represents observed scores (estimated ability) and y stands for the latent ability (true value). The upper and lower curves in the figures represent the upper and lower limits of the confidence intervals and the middle line represents observed scores.

To determine the confidence interval of a particular score, a vertical line is so drawn at the point on the x-axis representing the score so as to intersect the upper and lower curves at two points A and B, respectively. Corresponding values of A and B on the y-axis give the confidence limits and the interval between them, i.e. the confidence interval of the score in question. For example, confidence limits of the estimated score 48 (which is taken as the 'minimum expected score' for Bengali) are found to be 46.2 and 49.8, and the confidence interval 3.6. In the case of Mathematics the corresponding values are 50 (estimated score), 47.9 and 52.1 (limits), 5.8 (interval) respectively. Similarly for EVS the estimated score is 50, the confidence limits are 47.1 and 52.9, the interval being 5.8.

Thus in the case of Bengali, the estimated score of 48 is likely to take

a value approximately between 46 and 50, in 95% of occasions. A similar interpretation holds good for the other two subjects.

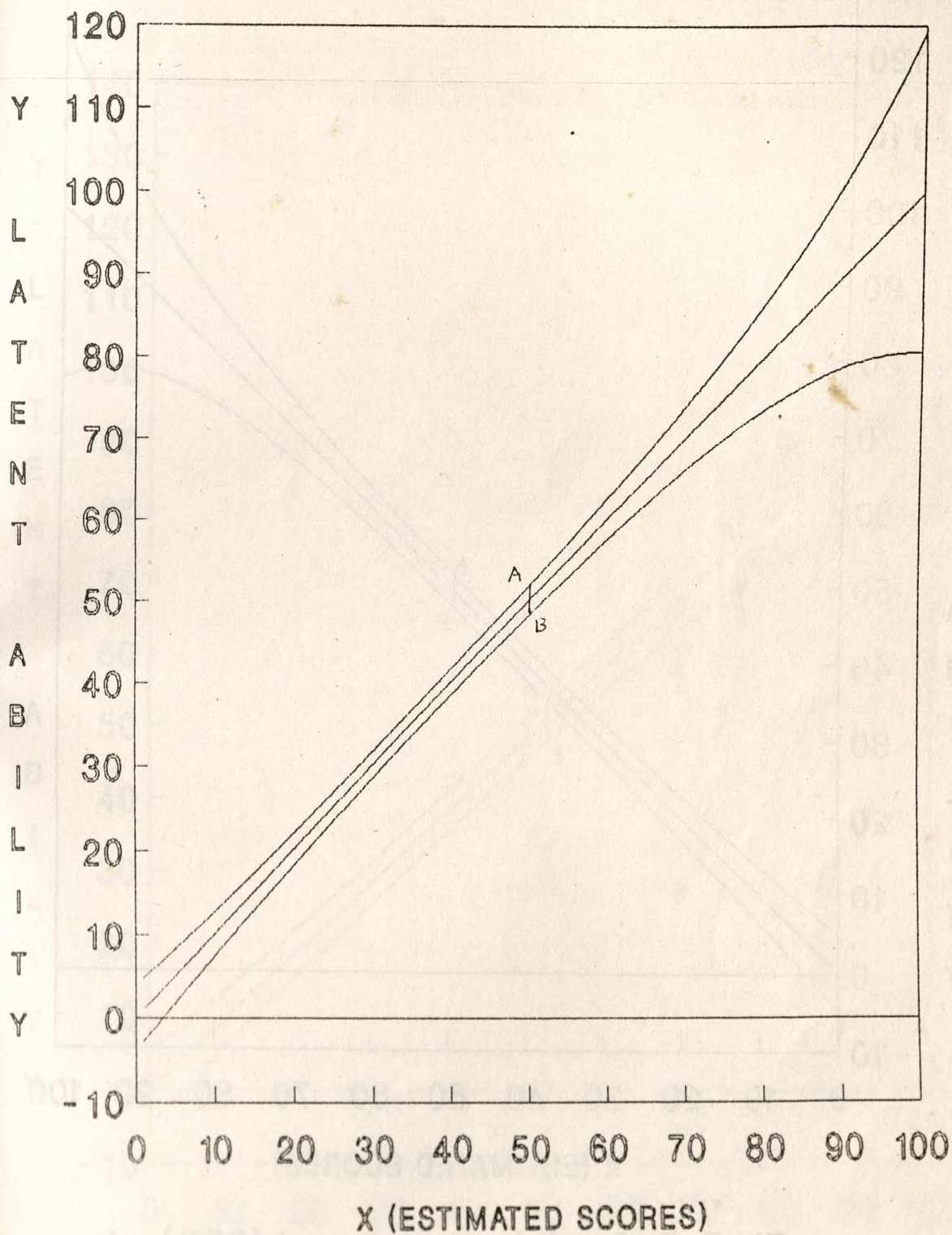


Fig. B 4. Confidence interval (95%) of Bengali test scores

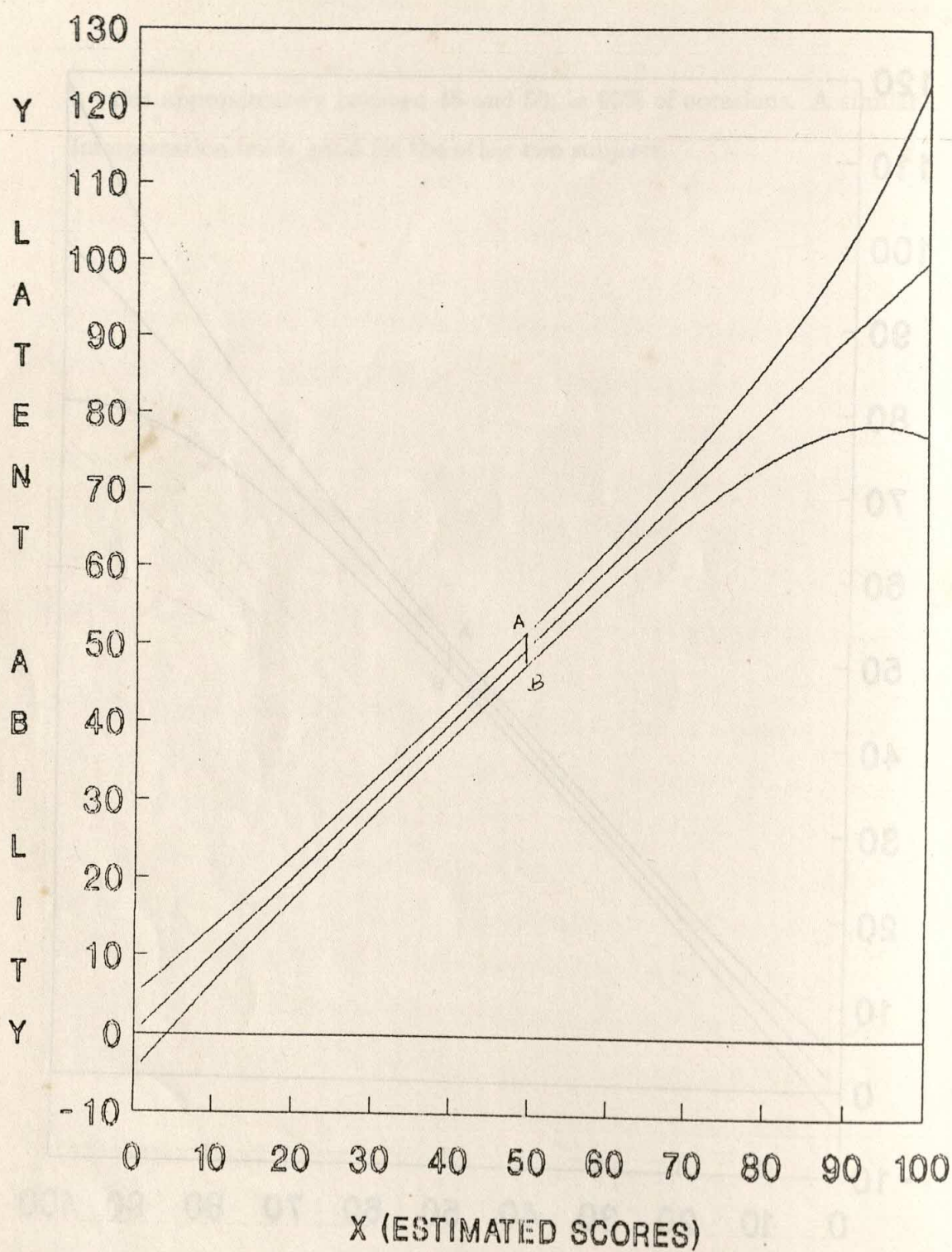


Fig.B 5. Confidence interval (95%) of Mathematics test scores

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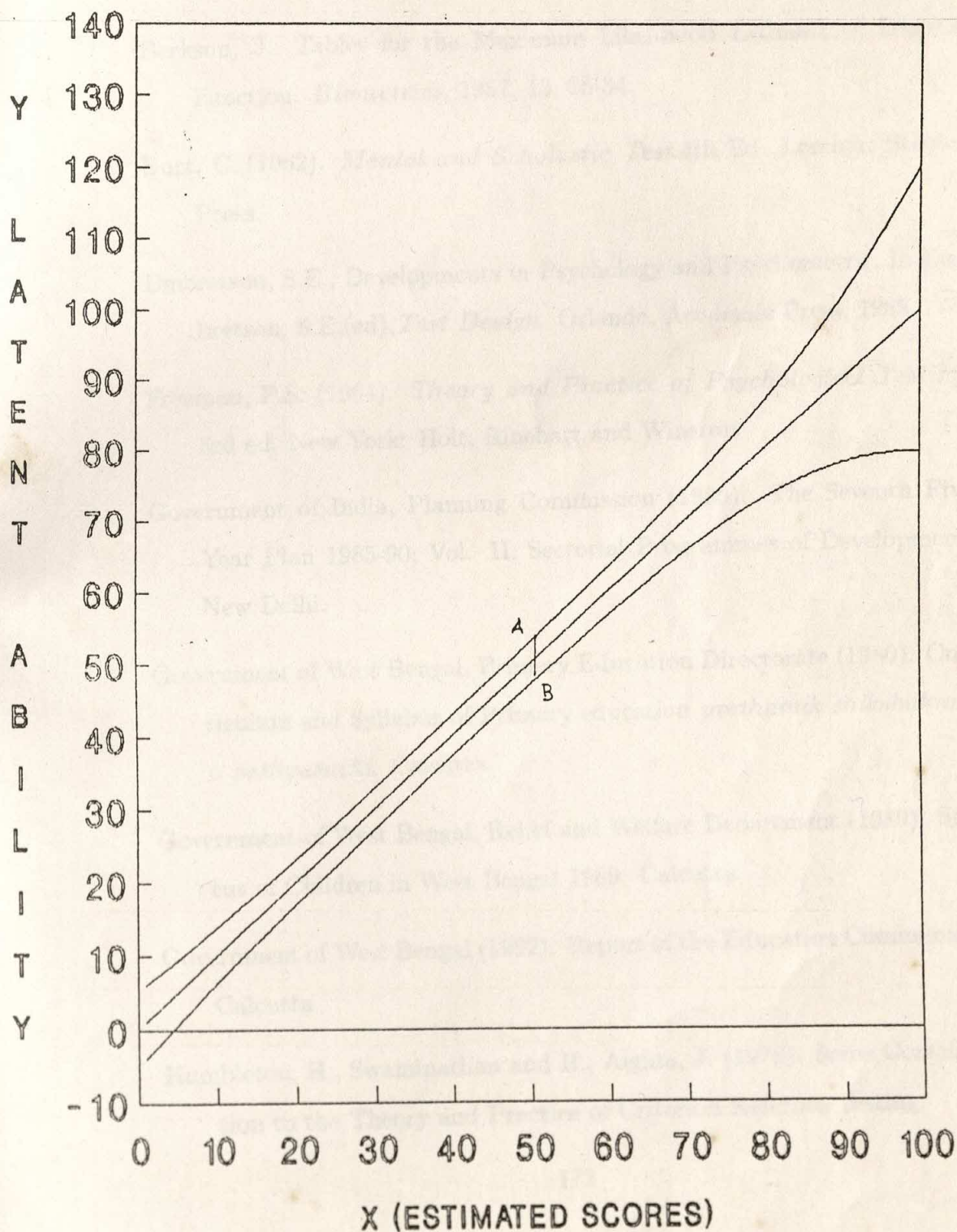


Fig. B 6. Confidence interval (95%) of EVS test scores

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Primary education.

372'241